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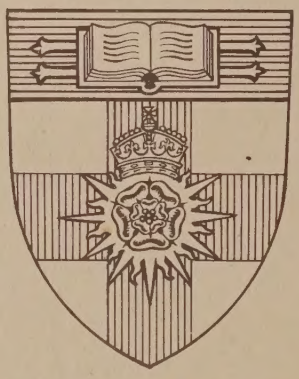

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REPORTS

FROM

COMMISSIONERS, INSPECTORS,

AND OTHERS:

FIFTY-ONE VOLUMES.

— (*39.*) —

INTERNATIONAL EXHIBITIONS COMMITTEE;
LIGHTHOUSE ADMINISTRATION (ROYAL COMMISSION).

Session

29 *January* 1908 —— 21 *December* 1908.

VOL. XLIX.

1908.

REPORTS

FROM

COMMISSIONERS, INSPECTORS,

AND OTHERS:

1908.

FIFTY-ONE VOLUMES:—CONTENTS OF THE

THIRTY-NINTH VOLUME.

N.B.—*THE* Figures *at the* beginning of the line, *correspond with the* N° *at the foot of each* Report; *and the* Figures *at the* end of the line, *refer to the* Paging *of the Volumes arranged for The House of Commons.*

INTERNATIONAL EXHIBITIONS COMMITTEE:

[Cd. 3772.] Report of the Committee appointed by the Board of Trade to make inquiries with reference to the participation of Great Britain in Great International Exhibitions; with Appendices thereto. p. 1

[Cd. 3773.] Minutes of Evidence taken by the Committee appointed by the Board of Trade to make inquiries with reference to the participation of Great Britain in Great International Exhibitions; with Appendices and Index. 71

LIGHTHOUSE ADMINISTRATION (ROYAL COMMISSION):

[Cd. 3923.] Report of the Royal Commission on Lighthouse Administration: Vol. I. 457

[Cd. 3937.] Minutes of Evidence taken before the Royal Commission on Lighthouse Administration; with Appendices and Index: Vol. II. 499

INTERNATIONAL EXHIBITIONS COMMITTEE.

REPORT

OF THE

COMMITTEE APPOINTED BY THE BOARD OF TRADE

TO MAKE ENQUIRIES WITH REFERENCE TO

THE PARTICIPATION OF GREAT BRITAIN IN GREAT INTERNATIONAL EXHIBITIONS,

TOGETHER WITH THE

APPENDICES THERETO.

Presented to both Houses of Parliament by Command of His Majesty.

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1907.

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408. 3000.—Wt. 9616. 10/07.—Wy. & S.

AT THE COUNCIL CHAMBER, WHITEHALL

THIS 23RD DAY OF OCTOBER, 1906.

PRESENT :

THE RIGHT HONOURABLE DAVID LLOYD GEORGE, M.P

The Board of Trade are pleased to appoint the following gentlemen, viz —

Sir ALFRED BATEMAN, K.C.M.G., Chairman,
Mr. A. WILSON FOX, C.B., Board of Trade,
Mr. CHARLES A. HARRIS, C.B., C.M.G., Colonial Office,
The Rt. Hon. Sir JAMES KITSON, Bart., M.P.,*
Mr. ALGERNON LAW, Foreign Office,
Mr. MALCOLM RAMSAY, C.B., Treasury,
Sir SWIRE SMITH, and
Mr. SAMUEL J. WARING

to be a Committee to enquire and report as to the nature and extent of the benefit accruing to British Arts, Industries and Trade, from the participation of this country in Great International Exhibitions, whether the results have been such as to warrant His Majesty's Government in giving financial support to similar exhibitions in future ; and, if so, what steps if any, are desirable in order to secure the maximum advantage from any public money expended on this object.

The Board are further pleased to appoint Mr. U. F. WINTOUR to be Secretary to the Committee.

(Signed) D. LLOYD GEORGE.

Whitehall, 2nd November, 1906.

The Board of Trade are pleased to appoint Sir ISIDORE SPIELMANN to be an additional member of the Committee appointed to enquire and report as to the nature and extent of the benefit accruing to British Arts, Industries, and Trade from the participation of this country in Great International Exhibitions.

(Signed) D. LLOYD GEORGE.

* Since created Lord Airedale.

REPORT

To the Right Hon. DAVID LLOYD-GEORGE, M.P., President of the Board of Trade.

SIR,

In accordance with the instructions contained in your Minute of the 23rd of October 1906, we have given our careful consideration to the question of British participation in Great International Exhibitions, and have now the honour to make the following Report with regard thereto.

The terms of our reference were :

Terms of Reference.

"To enquire and report as to the nature and extent of the benefit accruing to British Arts, Industries, and Trade from the participation of this country in Great International Exhibitions ; whether the results have been such as to warrant His Majesty's Government in giving financial support to similar exhibitions in future ; and, if so, what steps, if any, are desirable in order to secure the maximum advantage from any public money expended on this object."

Meetings held Witnesses examined.

Since the date of our appointment we have held 30 meetings, and have examined fifty-six witnesses. In the course of our enquiry we have had the advantage of hearing the opinions of a number of gentlemen who have had practical experience in connection with the organisation and preparation of British exhibits at Great International Exhibitions in the past, and we have also endeavoured, as far as possible, to ascertain the views held by manufacturers and traders in each of the principal industries of this country with regard to the questions referred to us.

With this object a form of questions was prepared and sent with a circular letter to some of the leading firms in each of the principal industries in the United Kingdom asking for their views as to the value of Great International Exhibitions as a means of increasing their trade with foreign countries, and also for any observations or suggestions which they might have to offer generally with regard to the questions covered by our terms of reference. Six hundred firms in all were consulted in this manner. In the greater number of cases the firms were asked whether they desired to supplement the information contained in their written reply, by giving evidence before the Committee, and a number of manufacturers and traders subsequently availed themselves of the opportunity thus afforded to them.

Chambers of Commerce consulted.

The leading Chambers of Commerce were also invited, at an early stage of our enquiry, to nominate representatives to give evidence before the Committee, and valuable information has, as a result, been furnished to us by the London, Manchester, Bradford and Blackburn Chambers of Commerce.

Copies of the circular lists of questions addressed to those bodies, and also to individual manufacturers and traders, will be found in the Appendix to this Report.

Reports from H.M. Representatives abroad.

In addition to the information thus obtained from the persons principally interested in exhibition matters in the United Kingdom, reports have also been furnished to us by H.M. Representatives in Austria-Hungary, Belgium, France, Germany, Italy, Switzerland, the United States of America, and Japan, with regard to the participation of those countries in Great International Exhibitions, and in the case of France the written information furnished to us was further supplemented by the personal evidence of H.M. Commercial Attaché at Paris, who specially visited London for that purpose.

Copies of the circular enquiry addressed through the Foreign Office to H.M. Representatives abroad and of the Reports received from them will be found in the Appendix to this Report.

PART I.—GENERAL EFFECT OF EXHIBITIONS ON BRITISH ARTS, INDUSTRIES AND TRADE.

The connection of this country with International Exhibitions began with the Great Exhibition of 1851 in London. Whether the commercial results of this Exhibition were altogether favourable to Great Britain has since been questioned; but the example set by ourselves was immediately followed by our neighbours, and since 1851 International Exhibitions have been held at close intervals in all the important countries of the world.

Meaning of the term International Exhibition.

The term "International Exhibition" admits of more than one interpretation. In its strictest sense the expression may be held to mean an Exhibition officially initiated and organised by, or under the auspices of, the Government of the country in which it is held, and in which other countries are officially invited to participate by the originating Power. To this class belong the Exhibitions at London in 1851, at Paris in 1900, and at St. Louis in 1904.

In a broader sense the term has been applied to Exhibitions which, while not organised by Government and not subsidised from public funds, derive their claim to an international character mainly from the fact that they are open to the products of more than one nation.

Again there have been international Exhibitions confined to the exhibits of various nations in a particular industry; but for the present purpose an exhaustive classification seems unnecessary. We have interpreted the reference as applying primarily to the great International Exhibitions which properly deserve the term, and which are not confined to the products of any particular industry.

The first question with which we are called upon to deal, under our terms of reference, is the nature and extent of the benefit accruing to British arts, industries and trade from the participation of this country in great International Exhibitions.

It will, in our opinion, be more convenient in dealing with this section of our enquiry if we reverse the order of this question and deal first with the more important aspect of Exhibitions—*i.e.*, their relation to British trade.

Number of interests involved.

Owing to the enormous growth of the manufacturing industries of the world in recent years, and the constant development of new and, in many cases, highly specialised industries, the interests which have to be taken into account in considering the effect which any particular form of enterprise may have upon British trade as a whole are very numerous and varied. Thus Exhibitions which possibly offer no special advantages to manufacturers of heavy goods, such as steam locomotives or marine engines, may be of very real value in pushing the sale of motor-cars, and a form of advertisement which may be of comparatively little use as a whole to highly organised industries, such as the cotton or woollen industries, may be of considerable importance to the trades which they supply.

The varying conditions of industrial development in different countries have also an important bearing upon the conclusions which may be formed on this subject, and an exhibition which may offer special advantages as an advertisement for one trade may prove to be of little or no value to another, owing to the highly developed state of that industry in the country in which the exhibition is held. Thus a manufacturer of agricultural machinery, who could expect but little profit from exhibiting his goods at an Exhibition in the United States of America, might derive benefit through showing them in Russia, and a maker of aniline dyes, who might be reluctant, for the same reason, to exhibit his products at Berlin, might be willing to show them at St. Louis or Chicago.

It is further a matter of considerable difficulty in forming an estimate of the effect which Exhibitions have had on any particular trade, to distinguish between the direct commercial results in the shape of increased orders which may be obtained as the result of exhibiting by individual firms, and the indirect benefit which they, in common with other manufacturers, may derive from the general advertisement which is afforded by a national display of this character.

Numerous other considerations, such, for instance, as the educational value of exhibitions and their effect upon the general, commercial and political relations of the participating countries, have also to be taken into account before it is possible to decide how far the official participation of this country (which may be held to imply financial assistance from public funds) has been justified by the results.

obtained; but before commenting in any detail upon these aspects of the problem, it will perhaps be convenient to describe briefly, as it appears to us, the general attitude of manufacturers in this country with regard to Exhibitions as a means of directly increasing their business.

A.—The Direct Effect of Exhibitions on Trade.

Reluctance of many manufacturers to exhibit at recent Exhibitions.

There can be no doubt, generally speaking, that from the personal point of view, Great International Exhibitions are not universally regarded with favour by manufacturers in this country. Increasing difficulty has been experienced in organising a representative display of British manufactures at all the Great International Exhibitions in which this country has taken part in recent years, and in many instances it has only been owing to the exercise of considerable pressure on the part of individual members of the organising body that the leading firms in certain industries have been induced to participate.

This reluctance to exhibit has undoubtedly increased considerably in recent years, and would appear to be attributable to a variety of causes.

Exhibitions have lost their novelty

In the first place it should be observed that since the middle of the last century, when the first of these great International Exhibitions was inaugurated in London, in the year 1851, Exhibitions have been held with increasing frequency, and their novelty has to a large extent worn off.

Other kinds of advertisement improved.

Considerable progress has been made of recent years in the art of advertising, and the advertisement afforded by displaying goods at an International Exhibition is consequently regarded by many as being of less importance than formerly, particularly when regard is had to the very great changes which have taken place in the character of the Exhibitions themselves. It is suggested that owing to the immense size to which modern Exhibitions, such as those at Paris in 1900 or at St. Louis in 1904, have attained, individual exhibits which do not form part of a large and striking national display are liable to pass unnoticed by the majority of visitors, and that in any case they cannot hope to attract the same degree of attention as was possible in earlier days when Exhibitions were more of a novelty, and were more strictly confined to the display of manufactured articles and objects of art.

Unsuitable surroundings.

Another consideration which appears to weigh with manufacturers of standing is the unbusinesslike and undignified manner in which they are apt to be mixed up with (*a*) what they call "fakers"—*i.e.*, the paltry dealers in cheap articles of ornament and amusement which do not represent British industry; and (*b*) the general element of popular amusement which has become part of the life of the modern Exhibition. There is an opinion that Exhibitions are nowadays promoted and kept open less with a view to the furtherance of trade interests than with the object of attracting visitors and achieving financial success from the receipt of gate-money. The number of side shows and other entertainments has, in consequence, increased to a very great extent at recent Exhibitions, and it is thought by many that this has resulted in attracting, as visitors to the Exhibition, pleasure-seekers rather than serious students or possible customers. There is no doubt that, in the opinion of many manufacturers, the changes to which we have alluded have materially diminished the value of exhibiting as a means of obtaining direct orders for their goods.

Decrease in the value of Awards.

There appears also to be a very general feeling that the value of the awards obtained by successful exhibitors at these Exhibitions has largely decreased owing to the frequency with which Exhibitions are now held, and also owing to the indiscriminate manner in which awards are often bestowed. Many firms, it is true, still attach considerable importance to awards, both as a general advertisement and as affording a useful guarantee of the superiority of their goods in tendering for contracts and the like; but the belief is undoubtedly gaining ground that buyers at the present day rely more and more on their own judgment in making their purchases, and that awards are consequently of considerably less value than was formerly the case. Awards, it is pointed out, have at most of the recent Exhibitions been granted to so large a number of Exhibitors that they cannot possibly carry the same weight as in earlier years when they were less lavishly bestowed, and when the distinction of a "Grand Prix" carried with it the reputation of being among the first manufacturers of the world in the particular line for which it was

awarded. It is not, in our opinion, necessary for us to deal in detail with the criticisms which have been made with regard to the manner in which awards have been granted at recent Exhibitions. Justly or unjustly, an impression prevails that they no longer furnish a true criterion of the actual merit of the goods, and there is no doubt that the reluctance with which many have taken part in Exhibitions of recent years is largely due to this fact.

Great trouble and expense involved.

In almost all cases the manufacturers, whose views we have obtained, draw special attention to the trouble and cost which the preparation and display of a creditable exhibit entail under modern conditions. The replies received to the circular enquiry which we issued to manufacturers in different trades show indeed that this is one of the principal considerations by which firms have been influenced in deciding not to exhibit.

Considerable difficulty, it should be borne in mind, is often experienced in following up the advertisement afforded by an Exhibition, owing to the heavy and in many instances prohibitive tariff of the country in which it is held, and, in such cases, the cost of preparing an effective Exhibit is usually out of all proportion to the direct results obtained.

Manufacturers are often too busy to exhibit.

The state of trade during the time immediately preceding an Exhibition also appears to be an important factor with firms in determining whether they shall take part in an Exhibition or not. The preparation of an important exhibit involves the pre-occupation of the principals, the chief manager, the chief scientific director, or other important members of the staff, and it therefore interferes seriously with the current direction and management of a business. Manufacturers who already have a large amount of work on hand are, not unnaturally, reluctant to incur an undue amount of trouble and expense in preparing exhibits which may possibly bring them in little or no direct gain, and in cases where the installation of an exhibit necessitates the constant presence of a skilled assistant it is often impossible for firms to take part in an Exhibition, even if they wish to do so.

Large sums of capital often locked up in unsaleable exhibits.

Again, considerable sums of capital are often locked up for a comparatively long period in exhibits, which, having been specially made for exhibition, are in many instances of a more or less unsaleable nature, and, when trade is brisk, this no doubt constitutes, for firms of limited means, a serious objection to exhibiting.

Danger of being copied.

A further objection to exhibiting which has been frequently advanced by the manufacturers whom we have consulted, is that they are liable to suffer serious disadvantage owing to their goods being copied at Exhibitions by their foreign rivals.

It seems likely that at the earlier Exhibitions a considerable amount of trade was lost to British manufacturers in this manner, and it is probable that in the case of certain classes of goods, and particularly in certain branches of the textile industry, to which we shall presently refer in greater detail, this objection is still of some weight. At the present day, however, we are not disposed to think that there is any greater danger of goods being copied at an Exhibition than there is of their being copied from the specimens which are usually on view in the showrooms of the manufacturers or their agents, or from actual samples which may be purchased on the open market. It must be borne in mind that at the present day the facilities for keeping in touch with new inventions or developments in other countries are very much greater than in the days of earlier Exhibitions, and that the opportunities for obtaining information with regard to new designs or new ideas in any particular branch of trade are by no means confined to Exhibitions. Since the Great Exhibition of London in 1851, at which, it is said, considerable harm was done to British manufacturers through their goods being copied by foreign rivals, many new ways of exploiting invention have been devised. Scientific societies have been established, such for instance as the Iron and Steel Institute, the Institutions of Mechanical and Electrical Engineers, and the Society of Chemical Industries, at which papers are read giving full details of new inventions, or new methods of manufacture, and these papers are widely reproduced in the special trade journals both of this and other countries.

The evidence which we have obtained does not at any rate tend to show that the danger is one which need be seriously taken into account, and it must always be remembered that, if, in some instances, exhibitors have experienced disadvantage through having their goods copied, they, in turn, do not fail to benefit, by themselves inspecting the exhibits of their competitors.

In the case of certain trades, it has been pointed out to us, the result of having goods copied is not necessarily unsatisfactory. Articles and styles are popularised through being made and advertised by a greater number of manufacturers, and the exhibitor, who, at the present day, can rarely hope to monopolise the market, gets the benefit of a larger demand for his goods.

Attitude of different trades towards Exhibitions.

Having briefly reviewed some of the principal objections to Exhibitions which have been put forward by the witnesses whom we have examined, we may now proceed to consider how far they represent the views of the commercial community as a whole—and to what extent they are likely to affect the participation of this country in any future Exhibitions.

One of the most striking facts which has been revealed by our enquiry is the unwillingness of the majority of manufacturers in almost every branch of the textile industries to take part in Exhibitions. Special reasons, to which we shall presently refer, may no doubt be found for the lack of support which is accorded to Exhibitions by the textile industries, but the broad principles by which their attitude on this question is governed will also be found to apply to most of the other great staple industries of this country, and may be explained briefly as follows :

Exhibitions mainly useful in the case of Novelties, Applied Arts, and Specialities of general consumption.

Exhibitions are mainly useful as a means of establishing the reputation of new and unknown firms or in pushing the sale of novelties, or articles which depend for a ready sale upon an attractive appearance as well as upon the actual merits of their composition or wearing qualities. In the case of almost all industries which are generally classed under the heading of applied arts, the productions of which, in order to be appreciated, require to be actually inspected by the customer, there is little doubt that valuable results may be obtained by exhibiting at Great International Exhibitions. Striking novelties or specialities of general consumption may also be advantageously brought to the notice of possible buyers by being displayed at Exhibitions. Products for which there is an extensive, though possibly undeveloped, demand in the neighbourhood of any given Exhibition are also especially benefited by this form of advertisement, and instances are not wanting to show that a valuable trade may often be built up in this manner.

They are generally of little use to the great staple Industries.

As a general rule it may be said that the articles produced by the great staple industries of this country, such for instance as yarns, piece goods, chemicals, and the greater majority of iron and steel goods, do not fall under this category. These industries are for the most part highly organised, and in many cases divided into a number of special trades, each of which performs a separate process in the manufacture of the same article. Thus in the manufacture of woollen goods, the combing, spinning, weaving and dyeing are often carried on in separate establishments, and none of the firms which devote themselves to those processes have any interest in showing their products. Again, the great staple industries have already established their connection in the markets with which they deal and the temporary advertisement afforded by Exhibitions is not of sufficient direct benefit to compensate them for the expense incurred, or for the dislocation of the regular routine of their business which the preparation and display of an effective Exhibit entails. The sources of supply for the goods which these industries produce are, moreover, at the present day well known to buyers in every part of the world, and the industries themselves are so well established that they do not probably benefit by a general advertisement, such as that afforded by an Exhibition, to the same extent as industries which have been founded more recently, and which consequently have more headway to make before they can gain a hold upon the world's markets.

Special reasons in the case of the Textile Industries.

In the case of the textile industries, it must be borne in mind that the bulk of the export trade in this country is in the hands of merchants, and that the manufacturers themselves, as a general rule, have no direct relations with the ultimate consumers of their goods. The demand for certain classes of textiles is, moreover, largely influenced by fashion. Dress goods exhibited in the spring would, in many cases, be out of fashion by the following winter, and if new patterns or designs which had been prepared in advance were exhibited before they were placed on the market, there would be a considerable danger of their being copied in some cheaper material, with the result that the market for those particular goods would be spoilt.

Difficulty of obtaining evidence as to actual sales effected through Exhibitions.

We have already alluded to the difficulty of distinguishing between the direct commercial results which may be obtained as the results of exhibiting by individual firms in the shape of increased orders, and the indirect benefit which they may derive from the general advertisement afforded by an Exhibition. This difficulty is experienced also by the firms themselves, and it is therefore impossible to obtain anything like an accurate return of the actual sales which may be directly attributed to the exhibition of any particular class of goods at a given Exhibition. In the absence of any reliable statistical information upon which to base our conclusions, we are not able to specify with confidence the precise trades which have benefited most by exhibiting at International Exhibitions.

Certain trades appear to obtain direct orders more readily than others.

From the evidence which we have heard, however, it seems probable that except in the case of striking novelties, from the exhibition of which satisfactory returns may be obtained in almost every class of goods, the trades which have derived the most direct benefit from exhibiting are the furniture, china, earthenware, glass, goldsmiths' and silversmiths', jewellers', gun, ammunition and, subject to the reservation in the next paragraph, the machinery and engineering trades. Individual firms have also obtained good results by exhibiting such articles as photographs, special kinds of paper, books and bookbinding, scientific instruments, blotting paper, sanitary fittings, cotton bags, ladies' apparel, electro-plate and cutlery, flexible metallic tubing, brass and copper tubes and metals, preserved food and sauces, biscuits, soap, and silicate of soda. Thus a manufacturer of cotton bags for packing flour, salt, sugar and the like is able to attribute direct increase of business of considerable importance to the fact of his having exhibited his goods at Paris in 1900. A manufacturer in gauge-glasses for showing the water level in boilers states that his firm obtained a large increase of business after exhibiting at Paris, Chicago and St. Louis; and a firm of furniture manufacturers state that they have increased their business with America and Canada threefold as the result of exhibiting their goods at St. Louis in 1904.

In the case of the machinery and engineering trades, the direct results obtained by exhibiting have occasionally been of considerable importance, but this remark, it should be observed, does not apply to specialities for which there is a very limited demand, or to very heavy goods, such as large marine engines, locomotive engines, or certain classes of machine tools. As an example of the benefit which may be derived from exhibiting certain classes of machinery, it may be mentioned that we were informed by one firm of engineers and merchants that they had themselves purchased and sold one hundred metal shaping machines as the result of having seen them at the Liège Exhibition, 1905, and that they had also seen at the Gas Exhibition at Olympia, two years ago, a tube-bending machine, of which they had since purchased and sold fifty. The same firm states that at the Engineering Exhibition in Newcastle in 1893 their attention was drawn to an exhibit by a firm with whom they had not previously done business, and that as a result they had made large purchases from that firm.

Numerous examples might be quoted, but enough has perhaps been said to show that direct results of considerable importance may be obtained by the exhibition of goods of widely different natures, and that if there are many trades to which Exhibitions are of little direct value, there are a number of others which may benefit materially thereby.

Direct results largely dependent on employment of capable agent.

To a large extent, it would appear, the amount of direct benefit which may be derived from exhibiting by any particular firm is dependent on whether that firm is represented at the Exhibition by an efficient agent. In many cases, it is said, the attendants in charge of the stalls at an Exhibition are unable to describe the goods exhibited in a correct or intelligible manner, and in others their technical knowledge is often thrown away owing to their inability to speak any language but their own. The point is one to which far greater attention appears to have been paid by foreign than by British exhibitors, and we cannot but think that if all exhibitors were able to keep an active and capable representative in constant attendance at their respective stands during the Exhibition the amount of direct business done might be largely increased.

B.—The Indirect Effect of Exhibitions on Trade.

Indirect advantages of Exhibitions.

Turning now to the question of the indirect advantages of Exhibitions, as opposed to that of direct pecuniary gain resulting from increased orders, we find that the evidence as a whole is strongly in favour of the continued participation of this country in all really important Exhibitions.

Advertising a necessity for the individual and for the nation.

Even those trades which as a whole are most unwilling to take part in Exhibitions themselves, are of opinion that the manufactures and arts of this country should be well represented at all really great Exhibitions, and a number of firms who from the nature of their exhibits can expect little or no direct return to compensate them for their outlay, still continue to exhibit at fairly frequent intervals. In doing this many have no doubt been influenced by the fear that they might lose their place in the trade if they failed to be represented at exhibitions when their competitors were showing; but there are on the other hand not a few who regard their expenditure on Exhibitions in the light of a necessary item in their general scheme of advertisement, and who spend a thousand or five hundred pounds upon an exhibit at Paris or St. Louis in the same way as they would upon hoardings or upon advertising in the papers. It must, however, be recognised that the exhibitors who are actuated by the former motive are probably the more numerous, and that it is in the necessity of keeping pace with foreign competitors that the chief argument is to be found in favour of the continued participation of Great Britain in all important Exhibitions. In our opinion, the same causes which render it necessary for invidual firms to spend large sums of money on advertisements in order to maintain their position in a particular trade, also render it imperative that every effort should be made at the present day to maintain and improve the reputation of British manufactures as a whole. Experience has shown that even in the case of firms with an established reputation and world-wide connections, attempts to discontinue advertising have usually been followed by a diminution in the sales effected, and we cannot but think that the neglect by Great Britain of one of the most important forms of national advertisement would be equally detrimental to her interests as a manufacturing country.

This idea of a national advertisement appears to direct attention to a special form of exhibit, the value of which has been specially commended to our notice in the course of our inquiry, viz., a collective exhibit of the trade of particular districts of the United Kingdom, which may thus react not only on the whole trade of the particular district but also (especially when the exhibits cover several districts) on the general trade of the country at large. A collection of Manchester goods or Bradford goods or of ironware from Wolverhampton, when carefully selected on collective lines from all the best manufacturers within those districts, may give an object-lesson of the trade of that particular district which cannot possibly be otherwise obtained, and it has been suggested to us that such an object-lesson has more effect than anything else in attracting orders from other countries to the area of the industry so represented.

Exhibitions stimulate invention and promote knowledge.

Another aspect of Exhibitions to which we think considerable importance should be attached is the effect which they have in encouraging national emulation and in stimulating individual Exhibitors to improve their productions. Several witnesses, indeed, whom we have heard are of opinion that it is in the opportunity which Exhibitions afford to individual manufacturers of comparing their productions with those of other countries that the chief value of Exhibitions lies. It is probable that the mere fact of preparing an exhibit which is to compete with the productions of rival manufacturers from all parts of the world is of itself of considerable value in stimulating invention and raising the standard of work on the part of those responsible for it, but we think that even greater benefit is often derived by the subsequent comparison of results at the Exhibition itself. In this manner the individual manufacturer is able to ascertain whether he is improving his position, merely maintaining his ground, or being displaced by his rivals. New light may often be thrown upon his work by inspecting the methods employed in other countries, and the ideas thus gained may eventually be of importance to the development of the industry in which he is engaged.

Instances in which industries have benefited by knowledge gained at Exhibitions.

Interesting examples of the effects which particular Exhibitions have had on the development of different industries will be found in the evidence of Sir William Preece, K.C.B., Mr. Bennett Brough, and other witnesses, which is given in the Appendix to this Report. It is, in the opinion of Sir William Preece, to Exhibitions

and in particular to the Paris Exhibition of 1881, that many of the most important developments of the electrical industry may be attributed, including several improvements adopted by the Telegraph Department of H.M. Post Office. The exhibition at Paris of certain high-speed tool steel by an American firm is said by Mr. Bennett Brough to have contributed in a large degree to the development of what has since become a British industry of great magnitude, and an Exhibit by the Courrières Colliery Company, at whose mines the death-rate from falls of the roof was abnormally low, has since led to considerable improvement in the methods of timbering employed by the colliery managers in this country, and to a consequent decrease in the death-rate from accidents of this nature.

Exhibitions are also of general educational value.

Exhibitions are also of considerable educational value apart from the opportunities which they afford to individual manufacturers for inspecting goods of a particular class. Exhibits illustrative of Education, Social Economy, Geography, Exploration and the like are almost invariably included in the Sections of all the participating countries, and afford valuable information as to the progress of other nations.

It is said that much of the progress which has been made in the technical and industrial education both of our own and other nations is attributable to Exhibitions, and evidence is not wanting to show that this fact is fully appreciated by the Governments of other countries. In the case of France and Germany one of the objects to which grants of Government money have been devoted is the despatch of workmen's missions to study the progress made by foreign countries in various branches of industry. Similar arrangements, it is understood, are also made by other countries, but no such missions appear to have been officially organised by H.M. Government.

In the case of the Paris Exhibitions of 1867 and 1878, an organisation was formed by the Society of Arts for the purpose of facilitating visits of artizans to the Exhibitions, and interesting reports on the results of these visits were subsequently published by that body. No assistance, however, appears to have been given to these undertakings from the official grants at the disposal of the Royal Commissioners for either of those Exhibitions.

Political considerations.

Finally, the political considerations which attach to any particular Exhibition may often be more potent than anything else in determining the action of the British Government in participating in an Exhibition. We would refer to the evidence of Sir Henry Austin Lee, where he observes that if there were another Exhibition in Paris at the present moment it would be practically impossible for the British nation not to take a leading part in it. Moreover, the mere mingling of nations in a great World's Fair may have an untold effect upon the future relations of the countries of the world. People see something of one another; they understand better one another's methods; they interchange ideas. A strong opinion was indicated in a great deal of the evidence that came before us, that even if there were no commercial value, and if there were no educational value to be derived from Exhibitions, the political considerations involved would very often of themselves justify an expenditure of public money

C.—The Effect of Exhibitions upon Art.

Having dealt in some detail with the direct and indirect effect of exhibition upon British trade, we may now refer briefly to the manner in which British art has been affected by the participation of this country in great International Exhibitions.

As regards the direct commercial benefit accruing to artists from the exhibition of their works, it should be observed that, before the Brussels Exhibition of 1897, British Art Sections usually consisted of works of art which were largely borrowed from private owners. These "loan collections" were consequently of little direct benefit to the artists except in the matter of awards.

Since the Brussels Exhibition of 1897, however, the tendency has been to make the British Art Section, as far as possible, representative of the time, and in recent years an increasing number* of works of art has been exhibited by the artists themselves. Prior to the St. Louis Exhibition of 1904, hardly any sales appear to have been effected in the British Art Sections, but at St. Louis the sales of British works of art realized the sum of £7,000, and at the exhibition at Christchurch in New Zealand, recently closed, they realized £17,000. These figures are interesting as illustrating the opportunity which exhibitions afford to artists, under favourable conditions, of disposing of their works.

It should be borne in mind that there was at one time an undoubted tendency on the part of foreign critics to underestimate the value of the work of modern British artists. Evidence is however not wanting to show that of late years there has been a growing appreciation of British art in foreign countries, and this result, it is said, is largely due to the excellence of the display which has been made in British Art Sections at recent exhibitions. As a result of these displays commissions have occasionally been obtained by British artists and their works have been acquired for the picture galleries of the Luxembourg at Paris, and for the galleries of Berlin, Düsseldorf, Munich and other places.

It is not only in the productions which are usually classed under the heading of pure art that Great Britain has of late years advanced her position in the eyes of the world. The applied art of this country as represented by the whole range of craftsmanship, and the artistic designs displayed in the potteries, furniture and metal work that have been exhibited in the British sections of the various International Exhibitions have not only won the highest diplomas, but have received the warm commendations of foreign critics.

As in the case of manufactures, however, it is impossible to gauge the success or failure of any given exhibit merely by the value of the sales effected. The new reputations made, the prejudices removed, and the lessons that have been taught and learnt have also to be taken into account.

The educational advantages afforded to the artists and to the public by an international display of this character are obviously of great importance, and it is probable that the indirect gain resulting therefrom far outweighs the direct value of the orders obtained.

At the present day, even art cannot be wholly freed from the necessity for advertisement, and there is little doubt that, for all objects which require to be seen by the purchaser in order to be appreciated, there are few forms of advertisement which can be more advantageously employed than exhibiting at great International Exhibitions.

It must be remembered that the Art Section is always one of the principal attractions at an exhibition, and that its success or failure has an important influence on the results obtained by the British Section as a whole.

It is generally admitted that the British Art Sections at the Brussels Exhibition in 1897, at Paris in 1900, and at St. Louis in 1904 were superior in artistic merit to those of other foreign countries, and from the evidence which we have heard as to the effect which these displays produced upon the minds of visitors to the exhibitions, we think that it is of the greatest importance to the success of British Sections in future that this excellence should be maintained.

D.—General Conclusions to Part I.

It will be seen, from the brief review which we have given under the three broad headings into which this section of our Report is divided, that no definite statement of general application can be made as to the nature and extent of the benefit accruing to British arts and industries as a whole from the participation of this country in great International Exhibitions.

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* Note.—The number of artists who sent works to the Brussels Exhibition in 1897 was 259. At Paris in 1900 there were 282, and at St. Louis in 1904 there were 501. No less than 511 artists were represented by their own works at the Christchurch Exhibition in New Zealand which has just been closed.

If we regard Exhibitions solely as a means of directly increasing the trade of ndividuals, there are serious objections to the expenditure on this object of large sums of money from public funds.

The evidence with which we have dealt under Section A of the foregoing summary shows that there is considerable conflict of opinion as to the benefits of exhibiting from this point of view, and that while there are some trades which probably derive great advantage from the support afforded by the official participation of H.M. Government in great International Exhibitions, there are many others of equal importance which derive no benefit whatever.

On the other hand, it has been shown that there are several considerations other than that of the direct pecuniary gain to individuals which have to be taken into account before it is possible to decide how far the official participation of this country has been justified by the results obtained. These considerations, which involve the general benefit of the country as a whole, point to the conclusion that the expenditure of public money on Exhibitions has not been without warrant, and that it cannot be discontinued.

The extent of the benefit resulting to any particular industry from the display of its manufactures at Exhibitions cannot be measured by the amount of direct orders received by individual exhibitors, nor can the value of the instruction which may be derived from an international competition of this nature be estimated in terms of pounds, shillings and pence. Even though the official participation of this country in great Exhibitions may not at first sight appear to bear direct results commensurate with the expenditure involved, it is probable that value for the money is ultimately obtained through the indirect advantages to which we have alluded.

To a large extent the question which we have to decide is not whether it pays to exhibit, but whether under modern conditions we can afford not to exhibit. We think that the evidence which we have obtained affords convincing proof that the answer to this question is in the negative.

The question as to how far the prosperity of this and other countries might be affected if Exhibitions were abolished altogether does not seem to us to be one which we can profitably discuss. There are, no doubt, a number of manufacturers who would be glad to be spared the trouble and expense of exhibiting if they could be sure that their competitors would also refrain from taking part in Exhibitions, and the interesting reports on the participation of other countries in Great International Exhibitions, which we print as an Appendix on pp. 29–64, show that this feeling is not confined to Exhibitors in this country. It will be seen from the Report by Sir Francis Oppenheimer, H.M. Consul-General at Frankfort, in particular, that there is a considerable feeling of disappointment among German Exhibitors with the results which have been obtained by the participation of Germany at recent Exhibitions, and there is also evidence of a similar attitude with regard to Exhibitions on the part of manufacturers in Austria and Switzerland. On the other hand it would seem from the information furnished by H.M. Commercial Attachés at Berlin, and from the reports of H.M. Representatives in certain other countries, notably in France, the United States of America, Belgium, and Japan that a high opinion of the value of Exhibitions as a means of promoting industrial development is held by the majority of Foreign Governments, and there is therefore little likelihood of anything in the nature of a general withdrawal from Exhibitions on the part of other countries. We are on the whole disposed to think that the view which has hitherto been taken with regard to Exhibitions by the majority of Foreign Governments is correct, and that even though the immediate results may in some instances be disappointing, the systematic and complete representation of a nation's industries at great International Exhibitions cannot fail to be ultimately of material advantage to the commercial development of that country.

Whatever may be the view taken on this question, however, there seems little doubt as to the part which is likely to be played in all future Exhibitions by the principal commercial competitors of this country. At all recent Exhibitions the displays made by France, Germany, and other foreign countries have been of increasing importance, and so long as this policy is continued, the representation of British arts and industries at the more important Exhibitions will remain a national necessity.

In this connection, however, we desire to point out that little, if any, advantage can be expected to be derived from Exhibitions at which this country is inadequately represented. There can be no profit either to the individual or to the nation as a whole in displaying inferior British exhibits by the side of the best productions of our commercial competitors, and the views which we have expressed as to the necessity for the representation of British arts and industries at great International Exhibitions must, therefore, be regarded as being conditional upon such representation being effective and complete.

In the next section of our Report we shall consider how far this condition has been fulfilled in the case of Exhibitions in which Great Britain has taken part in the past.

PART II.—PARTICIPATION OF GREAT BRITAIN IN PAST EXHIBITIONS.

A.—Grants made by H.M. Government.

The first International Exhibition abroad at which H.M. Government was officially represented, and for which a grant was made from the public funds, was held at New York in the year 1853. This Exhibition does not appear to have been of any considerable importance, and no information appears to be available which would show the grounds on which it was thought desirable that this country should participate in it.

Since that date, H.M. Government has been officially represented at no less than twenty-two Exhibitions which have been held either in foreign countries or in British Colonies, and has incurred a total expenditure of approximately £640,000 on this account during the last fifty-two years.

Several of these Exhibitions were of comparatively small importance, and the expenditure on some of them, such, for instance, as those at Antwerp in 1885 and 1894, appears to have been confined solely to the provision of a small allowance for the Consul in whose district the Exhibition was held.

In the case of other Exhibitions of somewhat greater importance, such, for instance, as those at Brussels in 1897 and at Milan in 1906, the formation of the British section was undertaken by a Committee which owed its origin to the initiative of the London Chamber of Commerce, and though the work of the Committee was assisted by grants of public money, no active part was taken in the organization of the British section by H.M. Government.

In other cases the task of organising the British Section was entrusted to a Government Department (*e.g.* the Science and Art Department) or to a Committee of Government Departments.

In the case of the more important Exhibitions, however, at which this country has been officially represented, the formation of the British section has usually been in the hands of a Royal Commission appointed temporarily for the purpose, and it is therefore with the success or failure of the British Sections at these Exhibitions that we are principally concerned.

A complete list of the Exhibitions in which Great Britain has participated officially, showing the expenditure incurred in each case by H.M. Government, will be found in the Appendix to this Report.

B.—General Review of Past Management.

Lack of definite policy with regard to Exhibitions.

The evidence obtainable with regard to the organization of the British sections at most of the Exhibitions in which this country has taken part, is for the most part of a very vague and uncertain nature. The information contained in the Official Reports is often incomplete, and it is difficult to form from them any clear idea as to the manner in which the grants were expended and the exhibits organized.

This lack of precision would appear to be due principally to the fact that the participation of this country in great International Exhibitions has never been governed by any continuous or clearly defined principles. In most cases, it would appear, the consent of H.M. Government to take part in Exhibitions has been based upon political motives, rather than upon any definite ideas as to the utility of the undertaking from the point of view of British trade. No continuous system has hitherto been adopted for the organization of British Exhibits at such Exhibitions, and no attempt seems to have been made to apply to one Exhibition the lessons derived from the success or failure of another.

In the Official Reports of most of the earlier Exhibitions, the expenditure is generally classed under a few broad headings of a very comprehensive nature, and it is difficult, in the absence of a more detailed analysis of the payments, to state in what manner or to what extent exhibitors were assisted from the grants at the disposal of the Organizing Body.

British participation mainly dependent on voluntary effort.

As a general rule, however, it may be said, that the assistance afforded by the Government to British Exhibitors has been confined to the provision of an organization which would enable them to display their goods if they desired to do so at their own expense. With but very few exceptions, the whole cost of the preparation, transport, insurance, installation, and decoration of the exhibits appears to have been borne by the exhibitors themselves, and few inducements were offered by the Organizing Body with a view to securing the co-operation of firms who were unwilling to exhibit for their own personal profit.

In this respect there is a very marked difference between the policy of Great Britain and that of other countries.

In the great majority of foreign countries, the formation of the national exhibit has usually been undertaken directly by the Government as part of a clearly defined national policy, having for its object the systematic and complete representation of the arts and industries of the country. The Government, it may be said, renders itself responsible for the credit and reputation of the nation, and liberal inducements are offered to manufacturers to ensure that the country shall be represented by its best productions.

The representation of the British industries at Exhibitions, on the other hand, has generally been mainly dependent upon the voluntary effort of individuals, and no sustained attempt appears to have been made to secure a really comprehensive display of the principal manufactures of the country at successive Exhibitions.

No Department permanently responsible for Exhibition work.

To a large extent this would appear to be due to the system, which has hitherto been followed, of appointing a different Commission to deal with each Exhibition, and to the fact that no one Department or other authority has been permanently responsible for the work of organization. No machinery, other than a general exchange of views between the Treasury, the Foreign Office, the Colonial Office and the Board of Trade, has hitherto existed for determining whether the participation of Great Britain in any given Exhibition is desirable or the reverse, and the decision to participate has therefore usually been taken without any organised attempt being made to ascertain the nature or extent of the support which was likely to be accorded to the undertaking by manufacturers in different trades.

Delay in appointing Royal Commissions.

Owing to the absence of any permanent authority to advise upon such matters, considerable delay has usually taken place in appointing a Royal Commission. Much valuable time that might have been devoted to the preliminary work of organization has been wasted before a decision has been arrived at as to who shall undertake the work, and the exhibits of many manufacturers who would have been willing to take part in the Exhibition if they had been approached at a sufficiently early date, have thus been lost to the British section. In the same way considerable delay has often taken place in approaching the authorities of the Exhibition with regard to the allotment of space for the British section. Even when the Commission is finally appointed it is often found that, owing to the lack of preliminary investigations, no definite estimate can at once be made as to the amount of space which is likely to be required, and the negotiations with the Exhibition authorities are thus conducted at considerable disadvantage. By the time that the final application for space has been made, it is not infrequently found that the best positions in the Exhibition have already been allotted to other countries. The British Commissioners have no alternative but to

accept what they can get, and the British section, or at least many important parts of it, are relegated to an obscure and often unattractive portion of the Exhibition.

No continuity between one Commission and another.

One of the most striking facts revealed by an examination of the Official Reports of the Royal Commissions, which have acted on behalf of this country in the past, is the absence of continuity by which their work has been characterised. The participation of Great Britain in each successive Exhibition would appear to have been treated as if it were an entirely new problem, unconnected with those that had gone before, and little, if any, attempt seems to have been made to apply to one Exhibition the lessons derived from another.

To a large extent this has been due to the fact that there has been no Department responsible for preserving the records of successive Commissions. When the work of a Commission is wound up, all the information which it has collected is lost. Lists of manufacturers, forms, labels and books of reference, which would be of inestimable value to succeeding Commissions, are either destroyed or dispersed among the libraries of various public departments. The work of organisation has therefore been begun anew by each Commission, in comparative ignorance of the methods adopted by its predecessors. Information may, it is true, be got together by dint of laborious researches at the British Museum, at the South Kensington Museum, at the Record Office or other departments, but by the time this is done much valuable time has been lost, and it is often too late to profit by the instruction which might have been derived from it if available at the outset.

No continuity in appointment of Executive Officers

The same lack of continuity that has characterised the appointment of Royal Commissions in the past is also noticeable in the selection of the executive officers. In the case of all the more important Exhibitions in which this country has taken part, the greater part of the active work of organization has been performed by the Secretary to the Royal Commission. This officer has, in most cases, acted as the Commissioner-General at the Exhibition itself, and upon the completion of all the preliminary work of collecting, classifying and despatching the exhibits from this country, has usually taken charge of the work of installation, decoration, and general management of the British section. The work which he is called upon to perform is work of a highly specialised nature, requiring not only energy and application, but careful training and previous experience. It is of course, in theory, the Royal Commission which is ultimately responsible for the organization of the British section. In practice, however, its functions are to a large extent of an advisory nature, and though much useful work is undoubtedly performed by the more active of its members, in enlisting the support of exhibitors and in settling generally the broad principles upon which the British section shall be managed, it is the Secretary and Commissioner-General who superintends all the practical work of organization. It is, in fact, mainly upon this one officer that the success or failure of the national display as a whole depends. In these circumstances it is not a little surprising to find that in no two of the more important Exhibitions in which this country has taken part since 1878 has the post of Secretary and Commissioner-General been filled by the same man.

It is not within our province to criticise the work which has been performed by the individual officers who have held that post in the past. Having regard to the disabilities under which they were placed, owing to their lack of experience and the absence of continuity with previous Exhibitions, we consider that their work has as a rule been admirably performed, but we feel it necessary to deal in some detail with the criticisms which have been made by the witnesses whom we have examined, upon the administration of British sections at certain of the more recent Exhibitions. We desire, however, to point out that our observations in this connection are not in any way intended to reflect upon the energy and zeal of the officers primarily responsible for their management, but upon the system which has rendered it necessary for them to carry out their work under such manifest disadvantages.

Great Britain inadequately represented at past Exhibitions

From the evidence which we have heard, there appears to be little doubt that, taken as a whole, the British sections at all the more recent Exhibitions have not afforded an adequate and satisfactory representation of the nation's industries. With the exception of the Art Exhibits, which at recent Exhibitions have undoubtedly attained a high degree of excellence, the goods exhibited in the British sections would appear to have been of very uneven quality. Many of the more important industries of this country, if represented at all, were represented by firms of minor importance. The exhibits of many of these firms were often creditable to themselves, but it cannot be said that they were representative of the best productions of the country or that they compared as a whole favourably with the exhibits of other countries.

Failure to secure the best firms.

It is felt by many manufacturers that insufficient attention has been paid by Royal Commissions in the past to the question as to which firms were in a position to furnish creditable and representative exhibits and which were not. No system of selection, such as that which prevails in many foreign countries, has been adopted with a view to ensuring that only the best examples in every department of industry shall be represented at the Exhibition, and except in a few notable instances no sustained attempt appears to have been made to secure a complete and effective display of each individual trade as a whole. In many foreign countries this object is usually attained by the formation of collective exhibits for each industry or branch of industry. By this means a complete collection of the best and most representative specimens is made for each class of manufactures, the goods are then carefully arranged and harmoniously grouped together in the form of a single exhibit illustrative of the trade to which they belong. In this manner a symmetrical appearance is obtained, space is saved, and duplication of exhibits is avoided.

Collective Exhibits.

Except in the case of the St. Louis Exhibition, this system has never been tried on an extensive scale in this country. Attempts have from time to time been made to form collective exhibits of this nature, but they have usually been abandoned owing, it is said, to the difficulty of inducing British manufacturers to enter into any form of combination or to submit to any restriction of their independence. As an illustration of this contention, it will perhaps be useful to quote the following passage from the Report of the Royal Commission for the International Exhibition which was held at Paris in the year 1900.

"As a rule, a British manufacturer will only exhibit if he can select his own goods, and display them in his own way and in his own show case. He is impatient of advice; he will not submit to dictation; he will not share a show case with others; nor will he join with others to adopt a uniform plan of arrangement. In many instances he regards his exhibit as of much more importance as an advertisement and a competition with rivals at home than as a comparison of his productions with those of other countries. For these reasons it is exceedingly difficult to organise collective exhibits. We were strongly impressed from the beginning with the advantages which such exhibits possess. They save space: they avoid the duplication of similar objects, and in the case of many industries they ensure a higher level of excellence than any single firm can hope to obtain. We endeavoured to persuade exhibitors to adopt the principle, but our efforts met with so little success that we had to abandon the attempt. In the few instances in which our recommendations were accepted—notably by the Bradford and Huddersfield Chambers of Commerce, the Alkali Manufacturers Association, the Redditch manufacturers of needles and fish-hooks, and others—the result amply justified our expectations; but, with few exceptions, the objection to combination, arising out of trade rivalry, proved too strong, and the experiment was tried on too limited a scale to have an appreciable effect on the section as a whole. We are none the less convinced that the best hope for the future lies in this direction, and that well-organised collective exhibits formed, perhaps, under the aupices of local municipalities or chambers of commerce, coupled with symmetrical arrangement, would afford the best means of displaying British industries in their true proportion. It is, however, essential that the preparation of such exhibits should be begun in ample time, and one of the difficulties of the task lies in prevailing upon men of business to consider the subject and take the necessary steps two years or more in advance."

It is probably true that the tendency of British manufacturers is towards individualism rather than collectivism in such matters, and that considerable difficulty is experienced in obtaining collective displays from many branches of industry.

In our opinion, however, the difficulty is not one which need be regarded as insuperable. To a large extent the success or failure of such attempts would appear to be dependent upon the amount of personal effort made by the organizing body and upon the degree of influence which individual members of that body possess with the trades in question. In this connection we desire to draw especial attention to the evidence relating to the formation of the Collective Chemical Exhibit at the St. Louis Exhibition which will be found in the Appendix to this report. In this case, four gentlemen acting as a sub-committee of the Royal Commission, formed a collective exhibit which has since been universally admitted to have been one of the finest displays which has ever been made by any country at any Exhibition. We have heard evidence from manufacturers who took part in that exhibit, and we think that there is little doubt that its success was due almost wholly to the personal efforts of the gentlemen by whom it was organized. We are unable, upon the evidence before us, to see any reason why similar success should not be achieved in the case of other industries.

It is of course essential that the Organizing Committee should be not only well acquainted with the industries to be represented, but also should have full knowledge of the firms engaged in those industries, and it is therefore necessary that careful attention should in the first instance be paid to the selection of men who are both able and willing to perform the work properly.

Inadequate organization for obtaining Exhibitors.

To some extent, no doubt, the inferiority of the British Exhibits as compared with those of certain foreign countries, is due to the fact that in Great Britain, little

if any direct pecuniary aid is given to the exhibitors by H.M. Government, whereas in many foreign countries a large proportion of the expenses which participation in an Exhibition involves is borne by the Government.

To a far greater extent, however, we think, the question is one of organization. The evidence of manufacturers in this country shows that, in many cases at least, the steps which were taken by the Organizing Body to obtain their co-operation were of a somewhat perfunctory nature. It is said that little information of practical use was contained in the circulars inviting them to exhibit, and that even after application for space had been made to the Royal Commission, considerable difficulty was experienced in obtaining particulars as to its probable cost, position, lighting, surroundings, &c.

In this connection we desire to point out that satisfactory results are rarely obtained by the issue of a circular invitation to exhibitors unless that step is followed up by active canvassing. How much can be accomplished by careful organization is shown by the case of the chemical exhibit at St. Louis, to which we have just referred. We cannot but think that if guidance were sought from the methods adopted by the organizers of that exhibit, a far better and more complete representation of the nation's industries might be obtained.

Inadequate Space for the British Section.

We have already alluded in a preceding paragraph to the delay which has usually taken place in appointing Royal Commissions in the past, and to the consequent disadvantage at which they were placed in negotiating for space with the Exhibition Authorities. It has been pointed out that in this manner the space allotted to the British section has often been inadequate and badly placed. The question is one to which our attention has been repeatedly drawn by the witnesses whose evidence we have heard. In some cases intending exhibitors have had no knowledge, until their goods were actually ready to be shipped, of the amount of space they were likely to obtain. The exhibits of important industries have eventually had to be placed in out-of-the-way positions, and in others they have been so crowded together that the individual exhibits failed to attract the proper amount of attention, if, indeed, they were not overlooked altogether.

Increased cost of Insurance owing to delay.

It should also be pointed out that, owing to the late date at which the organization of British sections has been begun, the cost of insuring the exhibits has been materially increased. By the time that British exhibitors are in a position to negotiate for the insurance of their goods, large risks have already been accepted by many of the insurance companies on the goods of exhibitors in other countries, and the rates of premium have consequently risen.

Except in the case of the St. Louis Exhibition, practically the whole of the cost of exhibiting, including insurance, has been borne by the exhibitors themselves. Large sums have, however, been spent out of Government grants in the past for the insurance of the Fine Art Section, and it is probable that a considerable saving might be effected under this heading, if the Royal Commission or other Organizing Body were in a position to effect the insurance at an earlier date.

Difficulties of Installation.

A further point upon which criticisms have been made in connection with the organization of British sections at International Exhibitions in the past, is that of the difficulty which has been experienced by exhibitors in installing their exhibits on the space assigned to them. Owing to the unusual demand for labour which is created by the inauguration of a great exhibition, considerable difficulty is experienced in obtaining capable workmen to assist in the erection of the exhibits. In many cases exhibits of a highly intricate and delicate nature have to be set up by workmen, who have had no previous experience of the goods, and who are unable to understand the instructions given to them. At such times, it is pointed out, exorbitant charges are made both for materials and labour, and the installation of the exhibits is consequently attended with very heavy expense.

A lack of organization in the arrangements for the delivery of the goods in the exhibition buildings has also been a source of difficulty. Goods intended for one section of the building are frequently delivered in another, often at a considerable distance from their destination, and in the absence of an adequate supply of labour, considerable delay is entailed in getting them into their proper position.

To some extent no doubt such difficulties are unavoidable during the initial stages of an exhibition, and no amount of foresight would probably suffice to prevent their occurrence in individual cases. There appears however to be a very general feeling among British exhibitors that they were usually at a greater disadvantage in this respect than exhibitors of other nationalities, and that

greater facilities might have been obtained for them by the organisers of the British section.

It has been suggested to us by some of the witnesses whom we have examined, that in the matter of installation the object which the British Commission might properly seek to attain, should be to provide the requisite amount of labour and other necessary facilities to exhibitors at cost price.

It is said that in the case of certain of the foreign sections at recent exhibitions, practically the whole of the work of installation was carried out by workmen who were specially sent there for the purpose by the Government of the country from which the exhibits came. All the necessary materials were taken with them, and the work was therefore carried out in complete independence of the local contractors and workmen.

It is thought that if arrangements could be made on these lines by the organisers of the British section, the trouble of exhibiting would be materially diminished, and that a considerable saving of money would be effected.

Lack of uniformity in grouping and decoration.

Another important point to which our attention has been directed by most of the witnesses whom we have examined, is the lack of any uniform system of grouping and decorating the British exhibits, so as to secure a harmonious and attractive appearance of the section as a whole. In this respect it is generally admitted that British sections at most recent Exhibitions have compared very unfavourably with those of other countries. In the latter, as a rule, the exhibits are arranged by the Government organization in such a manner as to form a complete national exhibit of a striking and decorative character. The show cases are usually of a uniform pattern, and a general scheme of decoration is adhered to for the whole of the exhibits. In the British sections, on the other hand, no considered plan would as a rule appear to have been adopted in allotting the space to exhibitors of different classes of goods. Artistic pottery has been exhibited side by side with trouser stretchers, scientific instruments have been placed next to the exhibit of a theatrical wig-maker, and glassware of a highly decorative character has been surrounded by pyramids of empty bottles and syphons. In this manner the uneven quality of many of the exhibits has been accentuated and the general effect of the section spoilt.

The decoration of the exhibits, moreover, appears to have been left almost entirely to the exhibitors themselves. Each exhibitor has provided his own show case and has decorated his stand in the manner that pleased him best.

To a large extent no doubt the same causes which render it difficult to induce manufacturers to take part in a collective exhibit, also render it difficult to arrange for a uniform and systematic scheme of grouping and decorating individual exhibits. We think, however, that, if sufficient trouble were taken to acquaint exhibitors beforehand with the nature of the arrangement and decoration proposed, much might be done to reconcile conflicting interests, and a far greater degree of uniformity might be attained.

Royal Pavilions.

One of the principal features of the British sections at the more important International Exhibitions in which H.M. Government has taken part, has been the Royal Pavilion, or headquarters of the Commissioner-General. It is in this building that the offices of the executive staff are usually located, and that official entertainments to the representatives of the foreign governments and to the exhibition authorities are held.

In the case of the Paris Exhibition of 1900 the Royal Pavilion was a copy of an old Jacobean house at Bradford-on-Avon, and at St. Louis it was a reproduction of the Orangery of the Royal Palace of Kensington, which was built by Sir Christopher Wren at the beginning of the eighteenth century.

There is no doubt that these buildings, which were most artistically decorated and furnished, formed a very important and striking feature of the British section. At the same time the reports of the Royal Commission for those Exhibitions, show that a very large proportion of the official grant was spent upon this one item, and the question may not unnaturally be asked whether the expenditure was justified by the results obtained.

After careful consideration of the evidence before us we are disposed to think that a portion at least of the cost* of these buildings might more usefully have been

* The cost of the Royal Pavilion at the Paris Exhibition was about £23,000, and in the case of the St. Louis Exhibition no less a sum than £31,829 was spent upon the Pavilion and the gardens by which it was surrounded. At the close of the Exhibition the buildings were sold, in the first case to the contractor by whom they were put up, and in the second to the St. Louis University. In neither instance, however, did they realise more than about £200.

spent in the provision of additional facilities for exhibitors, in the formation of collective exhibits, or in some more directly remunerative manner. While fully appreciating the value of such buildings, both from an educational point of view, and also as a form of national advertisement, we think that the expenditure incurred on them was probably greater than was actually necessary, and that equally satisfactory results might have been obtained by the erection of attractive and striking buildings of a far less substantial and expensive character.

General Management and Supervision of Exhibits.

A considerable amount of criticism has also been directed during the course of our enquiry to the general management and supervision of Britith sections. The views of witnesses are necessarily somewhat diverse on this question, according as individual exhibitors were fortunate or the reverse in regard to such matters as the allotment of space, the position of their exhibit, awards and other matters of a like nature. There seems, however, to be a very general feeling that the executive officers to whom the management of British sections has been entrusted in the past, have to some extent failed to get into proper touch with the exhibitors, or to appreciate their grievances. It should be borne in mind, that owing to differences of language and custom, the difficulties of the exhibitor in a strange land are often considerable. They are especially so in the case of exhibitors who have had no previous experience of the country. The regulations of the exhibition authorities often appear unnecessarily strict and vexatious to persons who have no knowledge of the difficulties with which the administration and control of a great exhibition are attended. It may happen that these regulations are not always uniformly enforced, and the feeling of resentment which they provoke is not unnaturally accentuated when the officials to whom the interests of British exhibitors are entrusted are less successful than the representatives of other countries in securing their relaxation. It has been said that responsible members of the British staff have not been personally accessible to exhibitors who have found themselves in difficulty, and instances have been quoted in which facilities, which exhibitors were unable to obtain from the headquarters of the British section, have subsequently been obtained by direct application to the exhibition authorities or by the aid of the officials in charge of foreign sections.

There is of course a not unnatural tendency on the part of exhibitors to magnify the gravity of their personal grievances. They are perhaps unduly inclined to attribute to lack of organization difficulties which were in fact either accidental or unavoidable. At the same time it must be admitted on reviewing the evidence which we have heard that the organization of the British sections at most of the great Exhibitions of recent years has not worked as smoothly as could be desired. When, however, we take into consideration the lack of continuity and the entire absence of system by which British participation in International Exhibitions has been characterized hitherto, we cannot but wonder that it has worked as well as it has.

C.—Comparison with Foreign Methods.

It may perhaps now be useful to describe briefly the methods adopted by some of the principal foreign countries for the organization of their exhibits at great International Exhibitions.

Broadly speaking, the methods of organization employed by the majority of foreign countries are based upon one of two distinct systems. Each of these two systems is of course subject to modification as regards matters of detail in different countries,* but for the purpose of this Report it will be sufficient to describe briefly their general characteristics and essential differences.

The first system to which we shall refer is one which would appear to have reached its highest state of development in France. The principal feature of this system is that practically the whole of the work of organisation is performed by a Committee of the exhibitors themselves. At the more important exhibitions at which the French Government is officially represented, this Committee is nominally under the control of a Commissioner-General appointed by the Ministry of Commerce. All the active work of preliminary investigation and organising the exhibits is, however, undertaken by the Committee, and practically the whole of the cost of the French section, with the exception of exhibits of an unremunerative nature, such as Education, Art, Social Economy and the like, is borne by them.

*Note.—Further particulars relating to the methods adopted by other countries will be found in the Reports by H.M. Representatives abroad, which are published in Appendix C.

The Committee, of which the full official title is the *Comite Français des Expositions à l'Etranger*, was established about twenty years ago, and was officially recognised by the French Government as an "*établissement d'utilité publique*" in 1901. The Committee has now about 2,200 members. It is open only to manufacturers who have obtained a high award at an exhibition, or who have acted as members of a jury at an exhibition or of an exhibition committee. The Committee acts in the interests of French exhibitors only and derives no profit from the work which it performs. It is controlled by a Council, which is elected by the Committee in general meeting every three years. The Council is divided into four Committees, which form the executive of the Society, and is further assisted by a Judicial Council composed of lawyers and barristers, who act in an honorary capacity as the legal advisors of the Society.

The functions of the Executive Committees are divided in the following manner :—

(1) *Committee for Propaganda.*—Recruiting new members, collecting subscriptions and donations, &c.

(2) *Committee of Enquiry and Preliminary Organization.*—The study of projected exhibitions, enquiries, and preliminary negotiations with the promoters of the exhibition or other competent authority.

(3) *Committee for Entertainments and Receptions.*—Organization of receptions, banquets and entertainments of every description.

(4) *Committee for Accounts and Publications.*—General management, finance, accounts and publications.

The decision as to whether the Committee shall take part in any exhibition rests with the Council, and is based upon the report made by the Committee of Enquiry and Preliminary Organization. If, upon the report of that Committee, it is decided to take part in an exhibition, a Special Committee is formed to undertake the work of forming a French section from members of the Society who are willing to exhibit, and the organization is thus retained in the hands of the actual exhibitors themselves.

The best example of the second system of organization to which we desire to draw attention is, perhaps, afforded by Germany. Under the German system the entire organization, preparation and supervision of the German sections is in the hands of a single official, nominated by the Imperial Chancellor and appointed by H.M. the Emperor. Large sums of money are granted by the Imperial Government to defray the cost of preparing and organizing the exhibits, and these sums are placed in the hands of the Imperial Commissioner with full responsibility.

Liberal assistance is given to German exhibitors from the Government Grant towards the cost of transport, insurance, installation and decoration, and the Commissioner is thus enabled to refuse all exhibits which are neither characteristic of German production, nor representative of the best work of the country. The principle of selection is rigidly adhered to ; collective exhibits are formed wherever possible ; and neither trouble nor expense is spared to ensure that the representation of German arts and industries is effective and complete.

After careful consideration of the evidence before us, we are not disposed to think that either of the systems to which we have alluded could usefully be adopted in this country. To a large extent the success or failure of a particular system of organisation must depend upon the national character and upon the customs of the country. The tendency of British manufacurers, as a whole, would appear to be towards individual rather than collective effort, and we therefore doubt whether a system of organisation, such as that which exists in France, would prove satisfactory in this country.

In the same way we doubt whether direct Government control, such as prevails in Germany, would be acceptable to the majority of British exhibitors. It has usually been one of the guiding principles of British policy in the past, that the Government should only do those things for the public advantage which the public is unable to do for itself. This policy has perhaps created a greater spirit of independence among British manufacturers than is to be found among manufacturers in most other countries, and it is probable that many of them would be inclined to resent, as being unnecessarily interfering, any attempt to introduce a system of direct Government control on German lines.

D.—General Conclusions to Part II.

We have now given a brief summary of most of the principal points to which our attention has been drawn in connection with the participation of Great Britain in past exhibitions. We have seen that owing to the lack of any clearly defined policy with regard to exhibitions, no continuous system has been followed in the past.

No adequate machinery has existed hitherto for determining whether the participation of this country in any given exhibition was desirable or the reverse, and the decision of H.M. Government to take part in an exhibition has therefore been taken at too late a date to permit of proper preparation being made for the organization of the British section.

Owing to the lack of continuity between one Commission and another the participation of Great Britain in each successive exhibition has been treated as if it were an entirely new problem, and no consecutive or clearly defined course of action has been followed with a view to securing the complete and effective representation of the national industries.

In the first part of our Report we have dealt in some detail with the reasons which render it difficult to obtain exhibits from many of the most important trades in this country. In the second part we have shown the inadequacy of the steps taken to overcome that difficulty, and the consequent failure to secure the co-operation of many of the best firms.

We have also shown how the natural reluctance of many manufacturers to incur the trouble and expense of exhibiting has been increased by the difficulties which they have had to encounter in connection with the space allotted to them, and with the installation, decoration and supervision of their exhibits.

As the result we find that, except in the art section, the British exhibits at all recent exhibitions have failed to afford an adequate and satisfactory representation of the nation's industries, and that though the advertisement derived by the exhibitors may in individual cases have been good, the advertisement derived from the British section by the nation as a whole has not been proportionate to the expenditure incurred.

In the preceding section we have expressed the opinion that none of the systems adopted by the Governments of other countries could usefully be employed in Great Britain. In the next part of this Report we shall indicate the steps which should, in our view, be taken in order to remedy the defects to which we have drawn attention.

PART III.—RECOMMENDATIONS.

It is, in our opinion, of the first importance that an improved machinery should be set up which will secure, first, a more prompt consideration of invitations to participate in exhibitions, and, second, a more effective representation of this country at any exhibition in which His Majesty's Government may decide to take part.

To obtain these objects it is essential that, before everything else, the Government should provide in future for continuity of organisation from exhibition to exhibition.

A.—Nucleus of Permanent Organisation.

The manner in which this continuity should be provided must to some extent depend upon the frequency with which it is to be expected that Great Britain will in future participate in International Exhibitions.

As to this no hard and fast rules can be laid down. We assume that participation will usually be confined in the future, as in the past, to International Exhibitions of the first importance, officially promoted by the Government of the State concerned and held, if not in the Capital, then in the industrial centre of the country.

For purely commercial purposes it would probably be sufficient if Great Britain were to participate in such exhibitions at intervals of from five to ten years. The fact cannot, however, be ignored that in many cases the governing considerations are political, and that His Majesty's Government could not invariably confine its appearance at International Exhibitions within the limits thus indicated.

We are of opinion that in order to effect the continuity of organisation to which we have referred it is necessary to appoint a permanent official whose duty it should be to collect full information respecting past exhibitions, and to evolve a proper system for application in the future.

We do not consider that the proper performance of this work necessitates the creation of a separate Department. On the other hand, we think that His Majesty's Government will be invited to take part in exhibitions of considerable importance with sufficient frequency to provide practically continuous employment for, at any rate, one official of standing.

The duties of such an official would be to preserve and make available for ready reference the records of past exhibitions; to organise a proper system of correspondence and management; to keep himself informed, as he could readily do, partly from study of the reports of His Majesty's representatives abroad, and partly from enquiries of his own, as to the nature and probable importance of exhibitions contemplated in the future; and to keep in touch with the principal manufacturers and traders in each industry, and also with Chambers of Commerce and other trade associations in the United Kingdom. He should also be expected to provide information for the use of the India Office and the Colonial Office in the event of its being required by the Governments of India or of any of the Colonies.

He would thus, when an invitation was received, be in a position to furnish without loss of time many of the materials necessary to enable His Majesty's Government to come to a decision; and would be able to advise as to the amount of support likely to be given by the commercial community, and as to the cost and form of participation in any given case. Finally, when an invitation had been accepted he would take an active part in the organisation and management of the British section.

The necessity for creating a separate Department for these purposes would, in our opinion, be avoided if such an official were attached to a large Department already existing (and the Board of Trade would appear to be the natural Department), from which it would be possible for him to draw in ordinary times such clerical assistance as he might require.

We think, however, that if continuity of organisation is to be adequately maintained, the officer in question should be primarily responsible for the proper management of any exhibition and that his standing should therefore be such as to eliminate any danger of his being placed in an unduly subordinate position.

In these circumstances, we recommend that a special officer—of approximately the rank known as Principal Clerk—should be attached to one of the departments of the Board of Trade as the officer specially concerned with exhibition work, and that he should be primarily responsible for the proper organisation, conduct, and winding up of all exhibitions. He would draw for clerical assistance upon the general staff of the Department, or on such other sources as the Board of Trade might arrange.

Assuming that such a man were appointed, the next point to which we wish to direct attention is that of the great advantage which may be gained by making it a rule to consult the Advisory Committee to the Board of Trade on Commercial Intelligence in regard to participation in all future exhibitions. This Committee is in every way a body suitable to advise with wisdom on such matters. It is largely composed of influential representatives from the principal trading centres of the United Kingdom, and its members also include representatives of the Foreign

Office, the Colonial Office, the India Office and of the principal groups of Self-governing Colonies. Not only would its advice on special points affecting commerce and organisation be valuable, but its influence with leading Chambers of Commerce and business men would carry very great weight in making any endeavour to secure their co-operation for the organisation of a British section. It is possible that this body might appoint a Permanent Sub-Committee to deal with exhibition work, and in this way the Government would secure a standing, though unpaid Committee, which would be of great assistance in securing that continuity which we consider essential.

B.—Method of Dealing with Invitations and Preliminary Arrangements.

Having thus settled the nucleus of a proper organisation, it may be well to indicate the course which it appears to us desirable to follow in dealing with invitations to participate in International Exhibitions.

Usually such invitations will be received either at the Foreign Office or at the Colonial Office. Under the present system it rests with the Secretaries of State for these Departments to advise as to whether and to what extent there are diplomatic or political reasons why an invitation should be accepted. Again, it rests with the President of the Board of Trade to advise as to the commercial aspect of any given case. The final decision whether an invitation should be accepted rests with the Treasury.

We do not, of course, suggest any change in the relations or responsibilities of the various Departments as thus defined; but we believe that the process of considering invitations to exhibitions would be greatly facilitated were there a special officer of the kind suggested above to whom ready reference could be made by any of the Departments concerned, and whose functions would be at this stage purely advisory.

When the Government has finally decided to take part in an exhibition and to assign a grant for that purpose, the next question to be considered is whether the proposed exhibition is of such importance that it is desirable to appoint a Royal Commission to manage the British section. We have taken a good deal of evidence as to the value of a Royal Commission in relation to exhibitions, and we consider that, for the more important International Exhibitions at least, the balance of evidence is undoubtedly in favour of their continuance as more suitable to British conditions than any other arrangement, provided that the Royal Commission in future takes its principles of organisation from the permanent officer whose appointment we have recommended.

There has been a good deal of criticism directed against the unbusinesslike methods of Royal Commissions, and their failure to act promptly and to get into proper touch with commercial men. It has been freely suggested to us that a greater number of good business men are required upon such Commissions. We think that in the past, owing to want of organisation and the consequent delay in getting to work, there has been a good deal of reason for the criticisms which have been directed against Royal Commissions as a system. On the other hand, it is generally admitted that the existence of a Royal Commission gives prestige to the British participation in any large exhibition, that on the whole it carries the confidence of the business world as regards unbiassed administration, and we consider that there is no other alternative which can usefully take its place.

We recommend, therefore, that for all really large exhibitions in which the Government decide to participate there should as a general rule be a Royal Commission, and that the permanent exhibition expert to whom we have referred should act as Secretary and Commissioner-General. Such Commissions have sometimes tended to be unwieldy, and we think that it will be advisable to avoid the appointment of such a large number of members on a Royal Commission as there have been occasionally in the past, and also to secure the representation of a larger proportion of commercial men.

In the case of less important Exhibitions, at which H.M. Government may desire to be officially represented, but for which the appointment of a Royal Commission is

considered unnecessary, we think that the organisation and management of British exhibits might properly be left to the Advisory Committee to the Board of Trade on Commercial Intelligence and the permament expert.

We consider that as soon as it has been decided to appoint a Royal Commission in any given case it would be desirable to submit the question of the selection of commercial members of the Commission to the Advisory Committee of the Board of Trade. We have no hesitation in suggesting that in this way the best commercial advice would be made available for the Royal Commission.

We cannot too much insist that the permanent expert whose appointment we have recommended should be the man who is to take the lead in the organisation of even the largest exhibition. We think it absolutely essential that he should at an early stage of the preparations for the exhibition visit the exhibition ground and superintend the details of organisation on the spot; and that later, when the exhibition is opened, he should be there to control the staff and to give the exhibitors any assistance they may require and also the benefit of his experience and advice.

C.—Certain General Principles of Management.

It is not, in our opinion, possible to lay down any hard and fast rules as to how the money granted by Government for participation in any exhibition should be spent.

It may, however, be stated as a general principle that any grants of money made by the Government should be primarily devoted to the proper organisation and administration of the British Section, and that the assistance afforded to exhibitors out of Government money should not take the form of a direct subsidy.

The amount of assistance to be given to exhibitors must depend largely upon the varying conditions and circumstances of each case. In the case of exhibitions at a great distance, such as those at St. Louis, it will probably be found necessary, in order to secure a representative national display, to give a greater amount of assistance than for exhibitions at Paris or Vienna. In special cases of this nature, it may be necessary to pay a part at any rate of the cost of freight and insurance as well as of installation, decoration and supervision. As a general rule, however, we think that the aim of the Government should be to provide improved organisation rather than an increase of financial assistance.

Economies would, in our opinion, be effected if the expenditure on Exhibitions were subjected to a stricter financial control than has been the case in the past. It is perhaps outside our province to determine the mode in which this control should be exercised, but we venture to indicate two alternatives. Either an estimate of the proposed expenditure of any grant should be submitted to the Treasury for their information and approval, under specified heads, as for instance (a) salaries and wages, (b) office accommodation, (c) erection of buildings, (d) decoration of British section, and (e) entertaining; or a representative of the Treasury should be invariably added to the body—be it Commission or Committee—responsible for the expenditure.

We now desire to refer specifically to one or two points of administration to which we think that the attention of the permanent expert should be specially directed.

1. *Space for British Section.*—The requisite amount of space in a suitable position should be secured for the British Section at the earliest possible date, and steps should be taken to ensure that exhibitors are informed as soon as possible of the amount of space available, its position, lighting and general characteristics.

2. *Insurance.*—The preliminary arrangements for the organisation of the British Section should be completed with the least possible delay, in order that the insurance of exhibits may be effected before the market has become adversely affected by the acceptance of risks of foreign exhibits.

3. *Installation of Exhibits.*—Provision should be made for an adequate supply of labour to be available for British exhibitors at a reasonable charge, and every effort should be made to minimise as far as possible the trouble and expense, of which complaint has so frequently been made. It will be for the consideration of the permanent expert whether this object may best be attained by the establishment of a bureau for the supply of locally-engaged workmen at the exhibition, or by

engaging a sufficient staff of workmen in this country to undertake the whole work of installation in complete independence of the local contractors and workmen.

4. *Decoration of British Section.*—It is, in our opinion, essential that the decoration of the British Section should be left in the hands of an expert adviser, to be undertaken as one general scheme. Care should, however, be taken to acquaint exhibitors beforehand with the nature of the proposed scheme, and every effort should be made to secure uniformity of showcases and decoration without interfering unduly with the wishes of individuals. We think that much may be done to reconcile conflicting interests if the work is undertaken early enough, and if individual exhibitors are tactfully approached.

5. *National Pavilion.*—We recommend that in so far as the rules and regulations of the exhibition permit, the aim of the British Commission should be to erect an attractive building of architectural merit, but of less costly and durable materials than heretofore.

6. *Supervision of Exhibits.*—It is in our opinion advisable that the members of the executive staff in charge of the British Section should have a good knowledge of at least French or one other European language. It should further be the duty of the Commissioner-General to ensure that there are sufficient number of officers attached to the British Commission, who are conversant with the language of the country in which the exhibition is held. These officers should be available, as far as possible, to assist exhibitors in any difficulties which may arise, owing to their inability to speak the language.

7. *Entertainments.*—We consider that a proper system of social entertainment, within reasonable limits, is a necessary accompaniment to the work of any British Commission.

We have now dealt with all the more important points to which our attention has been directed in the course of our enquiry. To a large extent, of course, the manner in which the administration and management of British Sections shall be carried out in future must be dependent upon circumstances of time and place. We have, therefore, confined ourselves to laying down certain broad principles of action which we consider to be of universal application, and which are, in our opinion, essential if Great Britain is to be represented at International Exhibitions in a manner worthy of her reputation as a manufacturing country.

We are satisfied that if effect is given to the recommendations which we have made much of the difficulty which has been experienced hitherto in obtaining creditable exhibits will be removed, and a considerable saving of public money be effected.

In conclusion we desire to place on record the obligations we are under to our Secretary, Mr. U. F. Wintour, for the zeal and ability he has displayed in our service and for the efficient manner in which he has discharged the duties imposed on him by our Inquiry.

A. E. BATEMAN, *Chairman.*
AIREDALE.
ARTHUR WILSON FOX.
C. ALEXANDER HARRIS.
A. LAW.
MALCOLM G. RAMSAY
SWIRE SMITH.
ISIDORE SPIELMANN.
S. J. WARING.

U. F. WINTOUR,
Secretary.
17th August, 1907.

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APPENDIX A.

CIRCULAR LISTS OF QUESTIONS ISSUED BY THE INTERNATIONAL EXHIBITIONS COMMITTEE.

Circular No. 1.

1. What has been your experience in connection with exhibitions?

2. Have you formed any opinion as to their effect on—

(a) the manufacturing and exporting trades of this country;
(b) British arts;
(c) the general commercial relations between the countries concerned?

3. If so, which, in your opinion, are the particular industries, or classes of industry, that have chiefly benefited by exhibitions, and in what way have they benefited?

4. Do you consider that the interests of any industry or classes of industry are adversely affected by exhibitions? If so, which are the industries, and in what way are they affected?

5. Do you consider that the direct commercial results obtained by the official participation of this country in International Exhibitions have been such as to warrant His Majesty's Government in giving grants for the organisation of British exhibits in the future?

6. Do you consider that equally satisfactory results could have been obtained by private enterprise?

7. Assuming that public money is, in any case, granted for the organisation of official exhibits, do you consider that the grant should be made subject to any special conditions as regards

(a) the accommodation and facilities offered by the exhibition authorities;
(b) the number and quality of exhibits offered by British firms?

8. Can you state briefly what have been the methods employed by the British Government in organising exhibits for International Exhibitions?

9. How do British methods compare with those of other countries, notably those of

(a) Germany;
(b) France;
(c) the United States;
(d) Austria-Hungary;
(e) Belgium;
(f) Italy;
(g) Switzerland;

10. What, in your opinion, have been the chief causes of success or failure of British exhibits in the past, and in what way do you think that the defects, if any, could be remedied in future?

11. Do you consider that any, and, if so, which of the methods employed by foreign countries could usefully be adopted for the organisation of British exhibits?

12. Do you consider that the appointment of a Royal Commission constitutes a satisfactory method of dealing with the organisation and preparation of British exhibits, or, if not, what alternative machinery would you suggest?

Circular No. 2.

(Issued to Chambers of Commerce and Manufacturers only).

1. Have you / your firm ever exhibited at any great International Exhibitions abroad, and, if so, what were the Exhibitions, and where were they held?

2. What was the nature of the goods exhibited by you, and what approximately was their value?

3. Have you had any increase of business with foreign countries which you can directly attribute to the exhibition of your goods and their inspection by visitors at such Exhibitions?

4. Have you ever experienced any actual disadvantage from exhibiting at such Exhibitions, either from having your goods copied by foreign competitors, or in any other manner?

5. Do you attach any considerable value, as a means of developing your business, to the awards which you have obtained at Exhibitions, and, if so, for what reason?

6. Have you ever been induced to buy from British or foreign manufacturers to any considerable extent, as the result of having inspected their goods at any Exhibition?

7. Can you specify any definite points on which you have derived instruction or knowledge from visiting Exhibitions, *e.g.*, methods of manufacture, economy in manufacture, or opportunity to purchase improved machinery and the like?

8. If you have refrained from exhibiting your goods at great International Exhibitions in the past, or have discontinued exhibiting, what, briefly were the reasons by which you were actuated?

9. If disinclined to exhibit from a business point of view, would you, with the object of ensuring that British manufacturers were creditably represented among the exhibits of other countries, be willing to exhibit at great International Exhibitions in future, provided that some permanent organisation were available which would minimise the trouble and cost to individual exhibitors?

10. Are you of opinion that this country should hold aloof from International Exhibitions generally, or do you consider it indispensable that an effective display of British machinery, manufactures and works of art should be made at such Exhibitions?

11. Have you any observations to make (a) upon the organisation of British exhibits at International Exhibitions with which you have been acquainted in the past, or (b) with regard to any improvement which could be made in the organisation of British exhibits in future?

APPENDIX B.

Circular Enquiry sent through the Foreign Office to H.M. Representatives Abroad.

The President of the Board of Trade has appointed a Committee, consisting of representatives of the Treasury, Foreign Office, Colonial Office and Board of Trade, together with four gentlemen possessing special commercial experience, to make inquiries and report with reference to the participation of this country in great International Exhibitions.

The terms of reference to the Committee are:—

> "To inquire and report as to the nature and extent of the benefit accruing to British arts, industries and trade, from the participation of this country in great International Exhibitions; whether the results have been such as to warrant His Majesty's Government in giving financial support to similar exhibitions in future, and, if so, what steps, if any, are desirable in order to secure the maximum advantage from any public money expended on this object."

For the purposes of this inquiry, the Committee are desirous of obtaining information with regard to the policy pursued by the principal commercial competitors of the United Kingdom, and particularly by the Governments of Austria-Hungary, Belgium, France, Germany, Italy, Switzerland the United States of America, and Japan.

The Committee are especially desirous of obtaining a full report with regard to the methods adopted by the Governments of the countries mentioned in regard to :—

(*a.*) The official organisation and preparation of exhibits for International Exhibitions abroad.

(*b.*) The subsidising of individual or private undertakings working on the same lines.

Information should be furnished with regard to the following points in particular :—

(1.) On what principle does the .....* Government act in regard to accepting invitations to participate officially in International Exhibitions ?

(2.) In what exhibition during the past twenty years has that Government taken part ?

(3.) What has been the total amount granted by the .....* Government in each case for the purpose of participation, and for the organisation and preparation of an official exhibit, and what was the amount actually spent ?

(4.) By what body or organisation were the grants expended in each case ?

(5.) What was the constitution of such bodies and by whom were they appointed ?

(6.) By what rules were they governed in allocating the grants to the various heads of expenditure, and what was the amount allocated to each principal industry or group of industries ?

(7.) What was the constitution of the Executive Staff to which the organisation and preparation of the exhibits was entrusted ?

(8.) What was the cost of the pavillion at each exhibition, and what price was obtained for it at the close of the exhibition ?

(9.) What were the methods employed by the Executive Staff in obtaining exhibits from each industry, and what were the rules governing the acceptance of such exhibits ?

* Insert name of Country.

(10.) Did the Executive Staff exercise any right of selection in regard to the exhibits offered, or were all persons desirous of exhibiting treated on an equality irrespective of the quality or suitability of their goods; in other words, was the exhibit organised by the Executive Staff, what is known as a "collective exhibit," that is to say, a *selected* exhibit, organised solely with a view to showing what was best in each branch of the industry, or were similar goods of varying degrees of quality, workmanship and finish accepted for inclusion in the exhibit from any persons or firms who desired to be represented?

(11.) If a collective exhibit, were the names of the owners or manufacturers displayed in such a manner as to make it clear by whom each article was contributed?

(12.) What were the arrangements made with the owners of the goods in regard to—

(*a.* Packing

(*b.*) Transport and insurance,

(*c.*) Installation and maintenance in repair,

(*d.*) The representation of individual firms whose goods were included in the official exhibit,

(*e.*) Sale of goods during the exhibition,

(*f.*) Re-packing and returning goods after the close of the exhibition?

(13.) By whom was the cost of these operations borne, and what, if any, was the proportion borne by the owner of the goods?

(14.) By what principles were the organising staff guided in allocating the space at their disposal—

(*a.*) To each group of exhibits,

(*b.*) To the goods of individual exhibitors?

(15.) What was the total number of .....* exhibitors in each group, and how did the awards gained by them compare with those gained by exhibitors of other nationalities in the same groups?

(16.) Are .....* manufacturers generally willing or reluctant to take part in International Exhibitions?

(17.) What are the reasons generally put forth—

(*a.*) In favour of, or

(*b.*) Against exhibiting at International Exhibitions?

(18.) What are the opinions of British merchants or of British Chambers of Commerce in foreign countries with regard to the local effect of exhibitions on British trade and prestige?

(19.) Is it proposed to hold any great International Exhibition in.....* in the near future, and if so, where is the Exhibition to be held?

N.B.—Full details should be furnished under this question of any proposals for an Exhibition in which it is likely that this country will be invited to participate. Copies of the regulations governing the admission of foreign exhibits and any other information of interest to intending exhibitors should be forwarded.

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* Insert name of Country.

APPENDIX C.

Reports by H.M. Representatives Abroad

I.—AUSTRIA-HUNGARY.

With reference to the Embassy Note of January 31st last, the Imperial and Royal Ministry of Foreign Affairs has the honour to send the following replies to the schedule of questions communicated by the Embassy regarding official participation in Foreign Exhibitions. This reply is based on information supplied by the Ministry of Commerce. It must be pointed out that it has not been found possible to furnish categorical replies to the various queries, partly because statistical data regarding Exhibitions are not kept in Austria, and partly because the enquiries are in many instances not applicable to the conditions existing in this country.

No permanent organisation exists in Austria, as it does in France, for the purpose of preparation for and participation in International Exhibitions held abroad. Consequently the question of participation and of the manner in which it is so accomplished must be decided in each individual case. There is, however, a Department of the Ministry of Commerce, within the competency of which fall all questions regarding Exhibitions, so that the Ministry of Commerce is in a position to exert its influence in the matter of participation in foreign Exhibitions and in questions connected with such participation.

As regards the possible methods of participation in foreign Exhibitions a distinction must, in the first place, be drawn between State-organised participation and participation undertaken by some Corporation, such as a Chamber of Commerce and Industry, a Society of Commerce, or a Committee formed for the special purpose of the Exhibition. It is naturally in the former of these two cases that the Minister of Commerce exercises the greater degree of control; in the latter he is only in a position to bring indirect influence to bear, by including representatives of his department in the Commission dealing with the Exhibition. In the former case the money required for participation in the Exhibition is provided by the State, whereas in the case of enterprises organised by Committees or other bodies desirous of participating in the Exhibition the necessary funds are raised by means of subscription, and the State grants a certain subsidy, the amount of which depends upon how much has been collected by subscription Also other public factors, such as Provincial and Communal Representative bodies often devote considerable sums to the purpose of participating in Exhibitions.

The official participation of Austria in a foreign Exhibition can naturally only occur when an invitation to that effect has been received by the Austrian Government from the country where the Exhibition is being held.

Since 1890 Austria has taken part in the following Exhibitions held abroad:—

£12,500. In 1893—The Chicago World Exhibition. Credit 300.000 kronen.

£125,000. In 1900—Paris World Exhibition. Credit 3,000,000 kronen.

£250. In 1901—Austrian Export Exhibition in Denmark and Sweden at Copenhagen. Credit 6,000 kronen.

About £1,458. In 1901—International Exhibition at Glasgow. Credit 35,000 kronen.

About £1,083. In 1902 and 1903—Exhibition of Clothing Industry at St. Petersburgh. Credit 26,000 kronen.

About £5,185. In 1902—Austrian Exhibition of Industrial Art in London. Credit 124,450 kronen.

In 1902—International Industrial Art Exhibition in Turin. Credit 40,000 kronen. About £1,666.

In 1903—The "Children's World" Exhibition in St. Petersburgh. Credit 20,000 kronen. About £833.

In 1904—International World Exhibition at St. Louis. Credit 1,100,000 kronen. About £45,833.

In 1906—International Exhibition held at Milan. Credit 200,000 kronen. About £8,333.

In 1906—International Exhibition at Bucharest. Credit 50,000 kronen. About £2,083.

In 1906—Austrian Exhibition at Earl's Court, London. Credit 500,000 kronen. About £20,830

At the Exhibitions at Chicago in 1893, at St. Louis in 1904, and at Milan in 1905 Austria's participation was organised by the State, whilst in the case of the other Exhibitions its participation was arranged by private enterprise and promoted by the above-mentioned State subsidies.

The Composition of the Committees was very various in the different cases, but the chief Trading and Industrial Corporations were invariably represented in the Committees. These bodies were formed partly by means of nomination of the members by the Minister of Commerce and partly by way of co-optation. In the case of official participation the Minister of Commerce appointed a Commissioner-General, who was charged with the preparations for the Exhibition and with the duties of representation at the place where the Exhibition is being held. In the case of private participation in foreign Exhibitions these duties usually devolved on the Presidential Bureau of the Commission.

For the purpose of encouraging people engaged in various branches of industry to take part in the Exhibition, it has always been found necessary to institute a propaganda, with the object of demonstrating to individual exhibitors the commercial importance of their co-operation.

The various conditions required for participation were laid down in a list of specially drawn up regulations which were taken as a basis in deciding as to the admission of the various exhibitors.

With regard to the inquiry as to whether collective exhibits were formed or whether the various exhibitors displayed their own articles, it must be pointed out that the practice on this point has always varied in the case of different Exhibitions and different branches of industry. It is, therefore, difficult to lay down any uniform principle on this subject. This observation also applies to Query No. 11 (as to whether in the case of a collective exhibit the names of the exhibitors of the various objects are given). The practice on this point has been different in different cases, deference being shown to the wishes of the exhibitors. The exhibitor has always had to bear the costs of packing, transport, insurance, installation, representation of the various firms, repacking and sending back the exhibits. Recently an attempt was made to establish at the Exhibitions so-called Commercial Enquiry Offices, whose business it was to assist the various exhibitors by their advice and help in commercial questions. The results of this experiment cannot, however, be described as having been very successful, and the selection by the various exhibitors of their own representatives would probably be found more advantageous.

The sale of articles during the Exhibition is naturally permitted, but as a rule they may not be

removed from the Exhibition Hall before the close of the Exhibition. In many cases the exhibitor is obliged to cede a portion of the purchase price (10 per cent. for example) to the management of the Exhibition.

No fixed principles can be given regarding the question of the allocation of space mentioned in Question 14.

As regards the number of awards gained at the various Exhibitions and the proportion of Austrians gaining awards to that of the successful competitors of other nations, it is suggested that information on these points may be best obtained from the Reports published by the Commissions of the Exhibitions in question. These Reports are no doubt at the disposal of the British Government.

As regards the participation of exhibitors it cannot be denied that the fact of there having been in recent years such a large number of the most various kinds of Exhibitions has aroused a certain feeling of tiredness among exhibitors.

The principal argument in favour of participation in International Exhibitions is to be found in the circumstance that they offer a favourable opportunity for directing the attention of foreign countries to special industries and branches of industry. The principal arguments against participation are the great expense involved and the fact that many industries attain the same object, perhaps more successfully, by means of agents and permanent representatives.

Finally, as regards the enquiry as to whether there are any International Exhibitions contemplated in the immediate future, the Ministry of Commerce points out that in the coming year the Imperial Jubilee Exhibition (Kaiser-Jubiläums-Ausstellung) will be held in Vienna, which will include an International Section for the Army and Navy. The Ministry of Commerce also mentions that in 1910 the inauguration of an International Game-Shooting Exhibition (Jagd-Ausstellung) is also contemplated.

Further details as to these Exhibition schemes are not yet available. They will, however, be communicated in due course to the British Embassy.

Vienna, March 8th, 1907.

APPENDIX C.

Reports by H.M. Representatives Abroad

II.—BELGIUM.

As considerable interest appears to be shown by Belgian traders in International Exhibitions, both at home and abroad, it has been for some time past the object of the Belgian Government to participate somewhat largely in such exhibitions, and much care has been taken in laying down the lines on which such participation shall be exercised, and great trouble has been spent on the choice of their representatives on the boards and organising bodies of such exhibitions.

The method of representation in all exhibitions, whether in Belgium itself or in a foreign country, is in the first instance the same—*i.e.*, the Government begins by appointing through the Minister of Industry a "Commissaire-General," who is chosen as being a person of weight and influence, and who is directly responsible to the Government, with power to appoint all his subordinate officers. So important is this office considered that, in the case of an exhibition in a foreign country, the "Commissaire" is ranked higher than the local consular officer. A copy of the rules drawn up by the Minister of Industry is appended hereto, defining the duties and powers of these "Commissaires Généraux." (See Annex A.)

In Belgium itself, International Exhibitions have as a rule been promoted by limited companies, but, if the patronage of the Government is granted, as in the case of the Liège Exhibition held in 1905, and the forthcoming Brussels Exhibition, not only is the "Commissaire" appointed by the Government, but the Jury or Prize Committee are also their nominees.

With regard, however, to foreign International Exhibitions, in which the Government are desirous of organising a Belgian section, it is necessary before nominating a "Commissaire," to procure the requisite funds, and to do this, two distinct methods are employed. Either the Government introduces a Bill into Parliament, or contributions are gathered from the funds at the disposal of the different Departments of the State who supervise those industries which would be represented. The first of these methods is rarely resorted to, as the process is somewhat lengthy, especially if the Bill is opposed by any section of the House, the latter being therefore generally adopted, except in such cases as those of very large schemes, when the funds at the disposal of the various Departments are not sufficient for this purpose.

The advantages which the Government is able to hold out to intending exhibitors in exhibitions under State patronage are of considerable importance, for, in Belgium, the railways being under the control of the State, if not actually State owned, special rates can be quoted for the carriage of exhibits and materials intended for the Exhibition. Sometimes the larger exhibitors receive free passes on the Belgian railroads, and return fares are quoted for goods intended for exhibition at the same price as that usually charged for single fares. Then also the correspondence of the Government "Commissaire" is franked by the stamp of the Minister of Industry. Frequently, too, the Customs authorities receive orders to pass all goods, being *bonâ-fide* exhibits, free of duty across the frontier.

The necessary funds having been procured, the Ministry of Industry appoints the "Commissaire Général," whose first step is to nominate his officers as follows:—

1. A secretary (Secrétaire-général).
2. A treasurer (Secrétaire-trésorier).
3. Several assistant-secretaries.
4. An architect.
5. A "Directeur du service de la Manutention," and
6. Several "Attachés au service de la Manutention."

The duties of these officers may be defined as follows:—

The "secretary" is the chief adviser of the "Commissaire," and as a rule he is appointed on the advice of the Government as having had former experience in the organising of exhibitions. He is in charge of the correspondence of the "Commissaire."

The "treasurer" has the control of the accounts of the exhibition, or section, as the case may be, but he cannot sign cheques, except they are countersigned by the "Commissaire," nor has he any direct control over the expenditure.

The "assistant-secretaries" carry on the correspondence under the supervision of the secretary.

The "architect" is appointed to draw up plans of the exhibition buildings, and to watch their erection on behalf of the "Commissaire," for which service he receives a nominal salary.

The "Directeur du service de la Manutention" superintends the arrangement of the exhibits, and is assisted by his "attachés."

None of the above officers, with the exception of the architect, receive any remuneration for their services, their expenses alone being defrayed out of the funds at the disposal of the "Commissaire."

Patronage Committee

This body of officers, which is known as the "Commissariat Général," having been duly nominated, the next step is the formation of a so-called "Patronage Committee." This committee is made up of influential persons all over the country, whose object is to encourage the people of the district in which they live to take part in the exhibition.

From the members of this committee, who number several hundreds, smaller committees are formed with the object of advising the "Commissaire" as to the commercial value of intended exhibits as well as the classifying of them. Such sub-committees must necessarily include a certain amount of persons who are experts in the class of exhibits they have to deal with.

It would seem at first sight that some considerable difficulty would be experienced in getting together suitable persons for this purpose, but the secret of the success invariably attained in this respect is no doubt in no small part due to the fact that it is well known that at the end of an exhibition the Government distributes a large number of civil decorations to all those who have in any way contributed to its success.

Circulation of Catalogues.

After the "Commissariat Général" and "Patronage Committee" have been formed, the "Commissaire" issues, under the auspices of the Government, a preliminary catalogue setting forth the rules of the exhibition and the different groups under which exhibits may be made. The prices charged for the spaces to be let in the exhibition or section building are also quoted, as well as a list of all the officers and members of the committees. This catalogue generally attains a large circulation throughout the country, as, not only is it distributed widely by the "Patronage Committee," but circulation by post in franked wrappers is permitted by the Government within the limits of Belgian territory.

As examples of these catalogues hereto are appended:—

1. The catalogue of the Liège Exhibition, being an example of the style of catalogue usually issued for International Exhibitions held in Belgium itself. (Annex B.)
2. The catalogue of the Belgian section of the Bordeaux International Exhibition (which is now being held), being an example of a catalogue issued in connection with the Belgian section of an exhibition held in a foreign country. (Annex C.)

The catalogue of each exhibition must necessarily differ in some respects from any other, but these two examples may be taken as fair illustrations of such catalogues.

International Exhibitions in which Belgium has taken part.

The Belgian Government has, during the past twenty years, taken part in the following International Exhibitions in foreign countries:—

London	1889
Paris	1889
Barcelona	1889
Melbourne	1890
Paris	1890
Guatemala	1897
Paris	1900
Turin	1902
St. Louis	1904
Paris	1904
Milan	1906
Tourcoing	1906

Bordeaux International Exhibitions

To this list it is now possible to add the International Exhibition at Bordeaux which commenced last April.

It has not been found possible to obtain particulars of the total amount contributed by the Belgian Government to the financing of the above exhibitions, except in the case of the Bordeaux Maritime Exhibition, in which its liability is estimated at 202,020 francs (upwards of £8,080). In event, however, of all the space in the Pavilion of the Belgian section being taken up, the amount which the Government will have to pay at the conclusion of the Exhibition will be 127,000 francs (£5,080), and this may even be considerably reduced, as certain space on the terrace and grounds surrounding the Pavilion can be let on a profit-sharing system to catering companies and others.

In this same exhibition the cost of the Pavilion was estimated at 70,000 francs; it is to be a replica of the "Stein" at Antwerp, an old fortified building in which the "Inquisition," when Belgium was under Spanish rule, was conducted. The contract for the construction of this building, which was to be made from moulds taken from the original, includes the clause that the materials used in its construction shall, at the end of the exhibition, when the building is demolished, become the property of the contractor, thus avoiding the difficulty of finding a purchaser or otherwise disposing of them. It would appear that this clause is usually inserted in such contracts by the "Commissaire."

Collective Exhibits.

As regards "collective exhibits," they are, in so far as can be ascertained, arranged and organised entirely by the groups of manufacturers themselves. It is not, however, their practice in such cases to display the names of the different owners.

Packing of Exhibits.

At the conclusion of an exhibition the owner, as a rule, has to supply his own staff and materials for the packing of his exhibits, but some company-promoted exhibitions have in a few cases made other arrangements.

Insurance.

The exhibits are always insured by the exhibitor, if at all; only the buildings erected by the Government being insured by the officials.

Transport.

The conditions under which the exhibitor receives transport facilities must naturally depend much on the situation of the exhibition, but the "Commissaire Général" has it in his power to make any special arrangements he may think fit to reduce the expense of carriage of exhibits, such as the chartering of special cargo boats or special trains.

Sale of Exhibits.

As regards the conditions under which goods may be sold during an exhibition, the "Commissaire" is empowered in special cases to give permission for the removal of an exhibit immediately after sale, though the exhibition is not over, but this permission is rarely sought or granted. There are, however, in nearly all exhibitions stalls in which fancy articles are exposed for sale which may be removed immediately by the purchaser, but space for such stalls is only allotted on the condition that, at no time during the exhibition shall the stock be allowed to run out.

As a rule, a tax of not more than 10 per cent. is levied on all exhibits sold during the exhibition, whether such exhibits are removed before or after the close of the exhibition. In all cases the exhibitors are required to agree to the removal of their goods within a fixed time after the conclusion of the exhibition—generally one month.

Support Belgian Manufacturers.

Up to the present, when the Belgian Government have decided to organise, on the invitation of a foreign Government, a Belgian section, they have always obtained the support of Belgian manufacturers, and all the International Exhibitions which have of recent years been organised in this country have been equally well supported.

Views of British Manufacturers.

With the exception of one or two isolated cases, there are no British manufacturers whose interests are entirely confined to Belgium itself, but many British firms have agents in this country, and these agents have naturally every reason to welcome a local exhibition as producing a good advertisement, free of expense to themselves, for the goods of the firms they represent; but should these agents have to incur part of the expense of participation in such exhibitions, it is possible that they would take a very different view of the matter.

On inquiring of the British Chamber of Commerce in Brussels, it has been ascertained that with the exception of really important exhibitions (such as that in Paris in 1904) British merchants are not favourable to participation on the grounds of the multiplicity of such exhibitions, and the consequent expense, and were it not for the necessity of competing with local firms in order to hold their own in the world's markets, they would not, it is suggested, be represented.

Brussels Exhibition of 1910.

It is proposed to hold an International Exhibition in Brussels in 1910, for the promotion of which a company has been formed under the patronage of the Belgian Government, to which the British Chamber of Commerce has stated it is distinctly favourable, several of its members having indeed subscribed to the guarantee fund, which amounts to over two and a half millions.

The proposals of the promoters of this exhibition are not sufficiently advanced to permit of details being given with any fullness or accuracy, but it is evident that the intention of both the company promoting the scheme and the Belgian Government is, that this exhibition shall rank high amongst the great International Exhibitions of the world.

WALTER MONTGOMERY.

APPENDIX C.

II.—BELGIUM—*continued.*

Annex A. to Report on International Exhibitions.

(In Sir A. Hardinge's No. 33 Commercial, of 8th May, 1907.)

Reglement d'attributions des Commissariats du Gouvernement près les Expositions à l'Etranger.

Le Ministre de l'Industrie et du Travail,

Considérant qu'il convient de déterminer par une réglementation générale les attributions des Commissariats du Gouvernement institués auprès des Expositions officielles ou officiellement reconnues organisées à l'Etranger,

Arrête :

Article Premier.—Le Commissaire Général représente le gouvernement auprès des autorités de l'Exposition.

Art. 2.—Le Commissaire Général est chargé d'organiser la participation belge à l'Exposition. Il prend toutes les dispositions et assure l'exécution des mesures nécessaires à cet effet.

Il arrête et soumet à l'approbation du Ministre de l'Industrie et du Travail ; le budget général des dépenses, le plan des installations et de la décoration générale, le règlement général et le règlement du Jury.

Il ordonne la publication des catalogues et, éventuellement, celle des rapports des jurés.

Art. 3.—Tous les services du Commissariat sont placés sous l'autorité et la direction du Commissariat Général. Celui-ci répartit entre les divers secrétaires la besogne administrative et les travaux du secrétariat.

Il nomme les employés et gens de service, il détermine leur titre et leurs attributions et fixe leur traitement.

La nomination des agents dont la rémunération mensuelle excède 150 francs est autorisée, au préalable, par le Ministre, sur proposition écrite.

Aucune récompense pécuniaire ne peut être allouée sans l'approbation écrite du Ministre.

Art. 4.—La correspondance relative aux dispositions d'ensemble et aux mesures d'exécution est signée par le Commissaire Général et le Secrétaire Général du Commissariat.

Art. 5.—Les registres de comptabilité sont tenus sous la direction d'un trésorier ou d'un des secrétaires désigné par le Commissaire Général ; celui-ci est responsable envers le Gouvernement.

Les pièces justificatives des dépenses sont dressées ou vérifiées par le trésorier ou le secrétaire en faisant fonctions ; elles sont contresignées par lui et signées par le Commissaire Général.

Art. 6.—Aucune dépense supérieure à mille francs ne peut être engagée sans l'approbation du Ministre. Il en est de même des dépenses fractionnées afférentes à un même objet, dont le total atteint ce chiffre.

Chaque trimestre, un relevé général des dépenses est adressé au Gouvernement.

Art. 7.—Le Commissaire Général prépare et dirige les opérations du Jury des récompenses. Les membres belges sont nommés par le Gouvernement.

Art. 8.—Le Commissaire Général présente au Gouvernement les propositions pour l'octroi des distinctions honorifiques belges et étrangères, à décerner à l'occasion de l'Exposition.

Les négociations avec les représentants des Gouvernements étrangers en vue de l'échange des décorations, ne peuvent se faire qu'avec l'approbation écrite du Ministre.

Art. 9.—Lorsqu'il est institué une Commission de patronage pour favoriser et encourager la participation des producteurs belges, les rapports de cette commission avec le Commissaire Général du Gouvernement, dans l'accomplissement de leur mission respective, sont déterminés par un arrêté spécial.

Art. 10.—Les fonctions de membre du Commissariat Général du Gouvernement sont gratuites.

Toutefois, des frais de représentation imputables sur le crédit général mis à la disposition du Commissaire Général, peuvent être alloués par décision écrite du Ministre.

En dehors des frais de représentation, aucune dépense afférente au Commissaire ou aux secrétaires ne peut être portée en compte sans autorisation préalable du Minisre.

Art. 12.—Sa mission terminée, le Commissaire Général veille à ce que les dossiers, documents et toutes les pièces de comptabilité et autres du Commissariat soient versées dans les archives du Ministère de l'Industrie et du Travail, ainsi que des collections, en plusieurs exemplaires, des catalogues de la section belge et des sections de tous les pays participant à l'Exposition.

Art. 12.—Pour toutes les questions qui ne tomberaient pas sous l'application des dispositions qui précèdent, le Commissaire Général en référera au Ministre.

Art. 13.—La Direction de l'Industrie est chargée de veiller à l'exécution des prescriptions du présent arrêté.

FRANCOTTE.

Bruxelles, le 10 juillet 1906.

APPENDIX C.

Reports by H.M. Representatives Abroad.

III.—FRANCE.

Lorsque le Gouvernement français est invité à participer officiellement à une exposition internationale étrangère, il n'obéit à aucune règle générale. Il accepte ou refuse suivant des considérations qui peuvent varier pour chaque espèce et notamment suivant l'importance présumée, l'intérêt économique ou politique de l'exposition.

Dans ces vingt dernières années, le Gouvernement français a participé officiellement aux expositions internationales suivantes, et a affecté à cette participation les sommes ci-après :—

Expositions.	Crédits alloués. Frs.	Dépenses réelles. Frs.
1886—Liverpool, exposition universelle	—	—
1888—Bruxelles, exposition universelle	6,000	6,000
1888—Barcelone, exposition universelle d'agriculture, industrie et beaux-arts	3	—
1888-1889—Melbourne, exposition universelle	43,972,34	39,918,81
1892—Vienne, exposition de la musique et du Théâtre	15,000	12,688,50
1893—Chicago, exposition universelle	2,130,000	2,026,198,53
1894—Anvers, exposition universelle	120,000	86,390
1895—Amsterdam, exposition	54,000	40,613,96
1897—Bruxelles, exposition	464,650	430,162,97
1901—Glasgow, exposition	—	—
1904—St. Louis, exposition universelle	578,500	566,160,08
1905—Liège, exposition universelle	278,000	277,575,15
1906—Milan, exposition internationale des transports et des arts décoratifs	310,000	277,976,28 à ce jour

Dans les expositions les plus importantes comme celles de St. Louis, de Liège, de Milan, les dépenses ont été faites par le Commissariat Général ; dans d'autres, comme celle de Bruxelles, en 1888, la subvention a été employée par le Comité organisateur.

Suivant une règle constante, les dépenses faites par le Commissariat Général sont ordonnancées par le Ministre compétent, le plus souvent par le Ministre de Commerce.

La répartition des crédits entre les diverses industries ou sections est établie dans chaque cas au mieux des intérêts nationaux ; mais il n'y a pas de règle uniforme pour cette répartition.

Dans les expositions de Glasgow, de St. Louis, de Liège, et de Milan, le soin d'organiser la section française a été confié au Comité français des expositions à l'étranger, société reconnue comme établissement d'utilité publique par décret du 12 juin, 1901, et dont le siège est à la Bourse de Commerce de Paris.

Ce Comité était chargé de recruter, d'admettre et d'installer les exposants sous le contrôle du Commissaire Général.

A Liège et à Milan, le Comité était chargé en outre, d'assurer la décoration générale de la section française et de supporter les frais de gardiennage.

Pour faire face à ses dépenses, le Comité recevait une subvention du Gouvernement et était autorisé à solliciter le concours des municipalités, des Chambres de Commerce et des associations.

Les Comités d'admission et d'installation étaient composés de membres désignés à St. Louis par le Comité français des expositions à l'étranger avec l'agrément du Commissaire Général et nommés à Liège et à Milan par le Commissaire Général sur la presentation du Comité français.

Les membres de ces Comités ne pouvaient être choisis que parmi les exposants.

Les demandes d'admission étaient soumises par classe à l'examen de ces Comités.

Quand les expositions collectives étaient autorisées, il était généralement loisible aux propriétaires ou fabricants des produits ainsi réunis d'afficher leurs noms.

Pour le transport, des démarches étaient faites auprès des Compagnies de chemins de fer et de navigation afin d'obtenir l'application de tarifs de faveur aux envois des exposants.

L'assurance des produits et l'emmagasinage des caisses vides étaient assurés d'après les règlements généraux des expositions.

Les plans d'installation étaient soumis par les Comités d'installation au Comité d'organisation qui statuait sous le contrôle du Commissaire Général.

Les exposants étaient généralement responsables des dommages que leurs installations apportaient aux planchers, cloisons, etc., ainsi que des dégradations provenant d'un usage abusif.

La vente avec livraison immédiate des objets exposés ne pouvait généralement avoir lieu qu'avec l'autorisation écrite du Commissaire Général après avis du President du Comité d'organisation. Cette autorisation pouvait toujours être retirée à l'exposant qui devait, d'ailleurs, se conformer aux prescriptions du règlement général.

Aucun produit exposé dans les sections françaises ne pouvait être retiré avant la clôture de l'exposition sans l'autorisation écrite du Commissaire Général et après avis du Président du Comité d'organisation.

Le réemballage se faisait dans l'ordre prescrit par le Comité d'organisation.

Les frais de ces divers opérations furent suivant les cas, mise à la charge des exposants ou de l'exposition. A Liège, la manutention des colis (la reception dans l'enceinte de l'exposition, la mise à pied d'œuvre, l'enlèvement des caisses vides et emballages, la remise à pied d'œuvre des caisses vides et des emballages, l'enlèvement des colis re-emballés), était gratuite pour tous les colis de dimensions normales dont le poids ne dépassait pas 1,500 kgs. Pour les colis encombrants ou d'un poids supérieur à 1,500 kgs. l'exposant payait une taxe. Pour l'emmagasinage des caisses vides, une taxe était également établie par le règlement général.

La répartition des exposants français dans les divers groupes et les récompenses obtenues sont indiquées dans les rapports généraux des expositions.

Les fabricants français sont généralement favorables à la participation aux expositions étrangères. Ils tendent à s'y rendre de plus en plus nombreux : tandis que l'exposition de Chicago en 1893 ne comptait que 2,700 exposants français, celle de St. Louis, en 1904, en réunissait plus de 7,000.

Le chiffre des récompenses obtenues accusait une progression analogue. A Liège, plus de la moitié des récompenses ont été accordées à nos compatriotes : 864 grands prix sur 1662, 619 diplômes d'honneur et 1,318 médailles d'or.

Il est question d'organiser en France une exposition internationale de l'automobilisme et des sports et une exposition internationale de la vie ouvrière.

Pour chacune de ces expositions, une commission spéciale a été nommée par le Ministre du Commerce ; ces deux commissions ont déjà tenu un certain nombre de séances, mais n'ont pas encore établi un projet définitif.

APPENDIX C.

Reports by H.M. Representatives Abroad.

IV.—GERMANY.

In answer to the questions contained in the Note from H.M.'s Embassy of January 23rd last, concerning Germany's participation in international exhibitions, the following remarks are submitted:—

Question 1.—Germany has so far only accepted invitations to such international exhibitions when the State issuing the invitation took the entire organisation in its own hands, or guaranteed the success of the undertaking by granting official subsidies.

Question 2.—Germany has taken part officially at the following exhibitions:—

In 1889 at Melbourne.
,, 1893 ,, Chicago.
,, 1900 ,, Paris.
,, 1904 ,, St. Louis.
,, 1906 ,, Milan.

Question 3.—The sums granted by the Imperial Government for the said exhibitions are shown in Appendix I. These sums were not exceeded; but, on the other hand, small amounts were generally saved out of the grants. Besides the sums granted by the Imperial Government there were also considerable sums granted by the separate States, especially in the case of the exhibitions of Chicago and St. Louis. For example, the Prussian Ministry of Education and the Ministry of Public Works contributed. There were also special allowances made in the Imperial Budget for the participation of separate Departments.

Questions 4 and 5.—The disposal of the general exhibition funds was placed in the hands of the Imperial Commissioner with full responsibility.

Question 6.—The application of the exhibition funds depended on the special objects aimed at in the exhibition. The amounts granted to individual groups of industry depended on this consideration. The principle followed was to make grants only to such branches of industry whose participation was desirable, and yet were not sufficiently interested in exportation to take upon themselves large expenditure. The question of the advisability of giving an impulse to the development of certain branches of industry was also considered.

Question 7.—The entire organisation, preparation, and carrying out of the German Section was put in the hands of a single official nominated by the Imperial Chancellor and approved of by His Majesty the Emperor. The exception to this was at the Milan Exhibition in 1906, where the organisation in Germany was handed over to a central Commission, whose members looked after the separate exhibition groups, and the Commissioner himself simply represented the exhibitors, directed the jury, and represented the Government officially. This exceptional proceeding was considered desirable on account of the small extent of the exhibition, and because, with the exception of a few groups, it was a purely official exhibition.

Question 8.—About 600,000 marks (£30,000) were spent on the German pavilion in Chicago, about 1,000,000 marks (£50,000) on the one in Paris, and 1,400,000 marks (£70,000) on that at St. Louis. The German pavilion in Chicago was built of solid material, and was left as a present to the authorities of the South Park in which the exhibition took place, on the condition that it should always be kept in proper order. The German pavilions in Paris and St. Louis were not built to last for any length of time, and they were pulled down after the exhibitions were over. The building firm received simultaneously the order to put up the building and to demolish it afterwards. The solid interior fittings of the German pavilion in St. Louis, consisting of tapestry, floors, paintings on the ceilings, etc., were sold to American firms for about 110,000 marks (£5,500).

Questions 9 and 10.—In the choice of groups of exhibits, Germany's export interests were taken into consideration. Only such exhibits were accepted as could be easily included in the accommodation provided for the different sections without prejudice to the general impression created by them. As far as possible, collective exhibitions were formed, the choice of which was in the hands of a specially appointed committee. Exhibits which were neither characteristic of German production nor represented their best products were in all cases refused admittance. The principle followed was only to admit objects which might be expected to gain some recognition from the International jury.

Question 11.—In the case of collective exhibitions, the principle followed was to name the individual exhibitors taking part in them. Further particulars are to be found in the elaborate and detailed German catalogues. (See Appendix 2 and the enclosed printed matter.)

Questions 12 and 13.—The answers to these questions are to be found by referring to the official reports concerning the international exhibitions at Chicago and St. Louis, which contain detailed information on the subject.

Question 14.—For the answer to this question, see the official reports.

Question 15.—The number of the exhibitors at the various exhibitions in which Germany participated officially are given in Appendix 3. The percentages of the exhibitors gaining prizes only exist for the exhibition at Paris, and are to be found in the official report of the French General Commissioner (cf. Vol. 5, p. 204).

As an example, Germany received per 1,000 exhibitors:—

Grand Prizes.	Gold Medals.	Silver Medals.	Bronze Medals.
93	203	227	133

Question 16.—This cannot be answered in a complete manner. This depends on temporary economic conditions, and the expectations founded on the proposed participation. It will vary according to the general economic state of affairs, and will depend on the country of the exhibition and the nature of the groups of exhibiting industries.

Question 17.—The reasons for or against the participation in international exhibitions have often been discussed in public. It does not seem possible to give them within the limits of the answers to the questions asked.

Question 18.—It is not intended to hold an international exhibition in Germany in the immediate future. But, should such an exhibition be determined upon, Great Britain would naturally be requested to participate.

APPENDIX 1.

Expenditure on Exhibitions.

Names of Exhibitions.	Sums Granted by the Imperial Government.
International Jubilee Exhibition in Melbourne, 1888–1889.	250,000 Marks = £12,500.
International Exhibition in Chicago, 1893	3,600,000 Marks = £180,000.
International Exhibition in Paris, 1900	5,000,000 Marks = £250,000.
International Exhibition in St. Louis, 1904	3,500,000 Marks = £175,000.
International Exhibition in Milan, 1906	370,000 Marks = £18,500.
Total	12,720,000 Marks = £636,000.

APPENDIX 2.

Printed Matter Furnished.

Official report on the International Exhibition in Chicago, 1893, sent in by the Imperial Commissioner (2 vols.).

Official catalogue, Exhibition of the German Empire, International Exposition, St. Louis, 1904 (1 vol.).

Official report on the International Exhibition in St. Louis, 1904, sent in by the Imperial Commissioner (1 vol.).

Gentsch. The International Exhibition in Paris, 1900, and its results from a technical and economic point of view (1 vol.).

Official catalogue of the German Department of the International Exhibition at Milan, 1906 (1 vol.).

APPENDIX 3.

Return of Number of German Exhibitors at International Exhibitions.

Melbourne, 1888-1889	959
Chicago, 1893	3500
Paris, 1900	2300
St. Louis, 1904	1700
Milan, 1906	475

APPENDIX C.

Reports by H.M. Representatives Abroad.

IV.—GERMANY—*continued.*

Memorandum on German Participation in International Exhibitions.

The question of the material advantages to be derived by a nation from participation in International Exhibitions is one of great importance. In Germany opinions seem to have changed somewhat in recent years as to the actual benefits resulting therefrom, though the Imperial Government have always granted large sums for taking part in all such exhibitions abroad in the belief that a systematic and complete representation of their industrial resources would be of solid advantage to the general commercial development of the Empire. Though Germany participated, at great expense, in the Chicago, Paris, St. Louis, and Milan International Exhibitions, it is noticeable that there has never been any question of holding such a World's Exhibition within the territories of the German Empire.

The subject of the extent of the advantages to be obtained from such participation has to be considered both from the point of view of the Government and from that of the exhibitors. With regard to the Government, the general feeling at the present time is, undoubtedly, in favour of participating largely in all exhibitions to which foreign nations are admitted, though there are, occasionally, exceptions to this general policy, such as the recent refusal of the German Government to take part in the International Exhibition at Christchurch in New Zealand.

With regard to the future, however, one may confidently assert that no available opportunity will be lost of displaying abroad, whenever possible, extensive representative exhibits of German industry as a whole, and large sums are certain to be granted for such objects. The Imperial Government have always been careful to systematically organise all the German exhibits at International Exhibitions; they do not permit inferior goods to be shown. Indiscriminate participation, which might be detrimental to the German section at any exhibition, is not allowed, as it would be injurious to the interests of the Empire. The system that has been pursued in this respect will best be realised by a perusal of the enclosed copies of various memoranda, sent to the Foreign Office in recent years (see Enclosure No. 2) concerning German policy as regards the St. Louis Exhibition. The Memorandum on the organisation of the exhibits for the Paris Exhibition in 1900 is instructive.

The views of the exhibitors in late years seem to incline against exhibiting to the same extent as formerly at International Exhibitions. It appears from information obtained that the Government have often had considerable difficulty in persuading some of the more important German firms to participate, as the expense involved was great, and the advertisement of their goods unnecessary. It is said that orders have in some cases had to be given by the Government to certain firms in order to induce them to send exhibits of their manufactures. The general reasons put forward against such participation in International Exhibitions include the following, and are well illustrated in Consul-General Oppenheimer's Report (see Enclosure No. 3). The expense involved in making "show" exhibits and in renting space is out of all proportion to the orders obtained. The exhibits are visited rather by a sight-seeing public than by persons really understanding the technical and other improvements in the articles shown. This form of advertisement is not desired by the big firms, but it is often, in a way, forced upon them from fear of other small and less-known firms, making similar goods, depriving them of foreign orders. Small and unknown firms are enabled, on such occasions, to make a splendid show of goods, finished in an elaborate style for exhibition purposes, which may deceive customers as to the real quality and worth of their usual manufacturers. Moreover, new models cannot always be protected by patents. There is also a prevalent idea among the exhibiting public that the amount of foreign orders obtained from the fact of participation in International Exhibitions in late years has not been as large as might have been expected.

On the other hand the feeling of the manufacturers in favour of participation in all special exhibitions for a particular trade or industry (such as the 1902 Exhibition at Düsseldorf for German iron and steel products) is steadily growing; for it is felt that such places are chiefly frequented by persons really interested in and having a knowledge of the trade or industry in question, who consequently place many valuable orders with the exhibiting firms.

With regard to the opinion of British merchants in Germany on the local effect of exhibitions on British trade and prestige (Question No. 18 of the queries for the Exhibition Committee), it may be remarked that, except at Hamburg, there are hardly any such persons residing in the German Empire. Sir William Ward, H.B.M.'s Consul-General at Hamburg, states that local British firms are ceasing to participate in great exhibitions for the same reasons as those stated generally above, but that they advocate the exhibition of British products at special exhibitions of all kinds (see his Report, Enclosure No. 4). I would here call attention to Sir William Ward's recommendation (see page 3 of his Report) that a permanent exhibition of samples of British manufactures should be established at Hamburg. He thinks that such an institution would be likely to materially assist English commerce; and he further advises all British merchants doing business in any part of the world to employ local resident agents in that emporium of "oversea" trade in order to keep them informed as to foreign demands for all classes of goods. From my knowledge of this country I also endorse his suggestion.

A Report, received from Mr. Mulvany, at Düsseldorf, is also forwarded.

The general conclusions, founded on various data obtained, are as follows, with regard to British participation in foreign exhibitions.

(1) Participation in International Exhibitions is not always to be recommended from the exhibitor's point of view as financially profitable. But at the same time, from the Government point of view, one must always remember that non-participation, or participation on a small scale, may, if other competing nations show more extensive and picked exhibits, entail a serious loss on the nation as a whole if the result is that the visiting public is thereby led to transfer orders from former exhibiting firms to those of other nations.

(2) If British exhibits are sent to International Exhibitions, they should be representative of the resources of the United Kingdom, and ought to be systematically organised by competent authorities, as is done by the German Government. No inferior articles of smaller unknown firms should be admitted.

(3) British manufacturers should not fail to exhibit at all special exhibitions which are confined to one or more trades or industries; and, in this case, they should be careful to quote the prices of any articles exhibited at figures which include cost of carriage, etc., from Great Britain., *i.e.*, delivered in the country in which the exhibition is held, so that the buyer can at once compare the price of British products on the spot with those produced by local competing manufacturers.

William S. H. Gastrell.

Berlin, March 14, 1907.

Six Memoranda by Mr. Gastrell on Policy pursued by German Government with regard to Paris and St. Louis International Exhibitions.

Enclosure in Sir F. Lascelles' No. 97 Commercial of May 15, 1900.

Memorandum on German Exhibits at Paris Exhibition.

In view of the extraordinary care that has been taken by the German Government in collecting and arranging the German exhibits for the Paris Exhibition, it is most desirable that the British public should carefully study them, so as to obtain an accurate idea of the capabilities of the German industries at the present time. It will be remembered that the German Government voted no less a sum than £250,000 to be spent on providing at Paris a satisfactory representation of the Empire's industrial capacity. Great care was taken in organising local committees, to whom each article intended for exhibition at Paris had to be submitted and approved before being admitted actually to the German section of the Exhibition. The result is that a very high standard of goods in all branches of trade are now on show; all inferior goods, not first-rate quality, obtained no admittance. Therefore the present exhibits truly represent the best that Germany produces; and as at the Paris Exhibition, for the first time, the same kinds of products from different countries will be shown alongside one another, it is evident that a quite exceptional opportunity will now be afforded of making accurate comparisons of British and German similar products of all kinds.

It is for these reasons that it would be well could experts in the leading British trades be sent to Paris to take advantage of this chance of thoroughly examining the best specimens of German handiwork. It would be time well spent for technical men in the textile, iron, shipping, and chemical trades, for instance, to closely study German exhibits affecting their branches of industry. Electrical and mechanical engineers would also profit by such work at Paris. The expense of sending these technical delegates might be borne by different groups of manufacturers, or by the Chamber of Commerce, who would doubtless be amply rewarded for the outlay by the personal inspection and knowledge gained in a manner not often possible.

In the Prussian House of Deputies, in April, a resolution was unanimously passed, that the Government should defray the cost of sending to the Paris Exhibition a certain number of technical workmen to report on various subjects of interest to German industry and agriculture. It is also hoped that funds may be provided by societies and private persons (employers) for the same purpose. The Germans intend to utilise the opportunity of learning all they can about what other countries produce.

It is reported that the American agricultural machinery exhibited at Paris will, at the close of the Exhibition, go to Moscow. In order to anticipate possible damage to German makers of machinery from the American Exhibition in Russia, the "Society of German Industrialists" is trying to organise a German Exhibition in several Russian towns during the present summer. This incident serves to show the value attached by the German exporters to a proper representation actually in the foreign country of the articles which it is hoped to sell there.

Berlin, May 14th, 1900.

Enclosure in Sir F. Lascelles' No. 31 Commercial of Feb. 21, 1903.

Memorandum on Participation of Germany in the St. Louis Exhibition.

A recent article in the "Norddeutsche Zeitung" points out to the public the importance of a worthy and thoroughly representative exhibit of the capabilities of the German Empire at the coming St. Louis Exhibition. It further calls attention to the fact that, as at the late Paris Exhibition, similar classes of products will be grouped together in a scientific manner, and that consequently great care must be taken only to show in the German section really first-class articles. This object can only be attained by a certain amount of sacrifice and assistance on the part of the interested parties. The German Government therefore hopes, in view of the important German interests involved, that the requisite assistance to the authorities will be forthcoming.

This article shows that the greatest care will be taken, as on the last occasion of the German section at Paris, to only allow the best of every class of German manufacturers and products (so far as they are included in the scope of the St. Louis Exhibition) to be shown to the American public; it is quite evident that no inferior articles of any kind will be accepted as exhibits by the German Commissioner for the St. Louis Exhibition. It appears that he has sent out to various persons in German industries, institutions, etc., about 8,000 copies of papers concerning this Exhibition, including the forms of notification of a desire to exhibit, a programme of the Exhibition, and the list of the groups and classifications. In an accompanying letter he points out that a successful German representation at St. Louis will certainly help to improve German trade with the United States, and that the German good exhibited there will also indirectly be made much better known to all the central and South American countries who are also participating in this Exhibition, and from which many people will travel to visit it. Hence German markets will be extended all over the American Continent.

Exhibitors are told that they will not, as sometimes happened at the Chicago Exhibition, be unfortunate in their experiences as to orders received for goods, for since 1893, after the great crisis, an enormous prosperity has come about in America, which still continues.

Berlin, February 18th, 1903.

Enclosure in Sir F. Lascelles No. 46 Commercial of March 14, 1903.

Memorandum on Germany and the St. Louis Exhibition.

The President of the coming St. Louis Exhibition and former Governor of Missouri, Mr. D. R. Francis, has been visiting Berlin, and had the honour of being summoned by the German Emperor to an audience which lasted over an hour on the 9th instant. It is said that His Majesty expressed his great interest

in the undertaking, and promised to favour it by all possible means, and said how much importance he attached to a complete representation there of German school arrangements of all kinds, as also of art products of the Empire. After the audience Mr. Francis lunched with the German Commissioner to the Exhibition, Dr. Lewald. Many leading men were present, including the American Ambassador, several high German officials, and numerous prominent industrialists, more especially those interested in commercial relations with the United States. Mr. Francis was also recently entertained at dinner by Freiherr von Richthofen, Minister for Foreign Affairs, at which there were present several of the Prussian Ministers of State, besides other leading officials and private personages.

In the Press it is reported that the Prussian Minister of Commerce has held a meeting at his Ministry to consider the participation of the Rhenish-Westphalian iron industries in the Exhibition. It is said that the proposal was not very favourably received by the interested parties, and that they were against such a step, even after hearing Dr. Lewald give his reasons for such exhibits. That gentleman has opened offices in Berlin in connection with the work and correspondence concerning the Exhibition. He has, during February, visited Saxony, and held meetings at different industrial centres in order to urge the advisability of German industries exhibiting at St. Louis next year, both on "economic and political" grounds.

It may here be mentioned that the Saxon Government have named as their Special Commissioner to the Exhibition Herr von Nostiz-Wallwitz, now Secretary of the Saxon Legation in Berlin, who is at work in agreement with Dr. Lewald for the purposes of the Exhibition.

In a published account of an interview with Dr. Lewald, he is reported to have said that it was originally contemplated to have only exhibits of art, art products, and educational subjects, but that there had since been added the book trade, textiles, agricultural products, and provisions, and some exhibits of the steel industries and of machinery, the main idea being to develop German exportation. Manufacturers of furniture, and of art glass, porcelain, bronze, iron, gold and silver goods will have exhibits. He emphasised the importance of the textile branch being well represented in America. German agriculture would have many exhibits of all exported products, such as hops, seeds, barley for brewing purposes. The best kinds of German horses would also be shown. Wines and spirits would also be represented there. Complete sections, showing the German State methods of insurance for workmen, and of legislation for their protection would also be prepared. Finally, there was a project of a collective exhibit of machinery for making tools; the Solingen cutlery and arms industries would also figure.

It will thus be seen that the original plan for the participation of the German Empire in the St. Louis Exhibition is already being considerably enlarged, and that most of the more important German industries will probably be represented in some shape or another in America in 1904 in order to do all that is possible to further German commerce with the United States. That the original plan would eventually be enlarged was almost a certainty when the large grant of £125,000 to £150,000 altogether was made known in the 1903 Estimates, of which £75,000 are already inserted for the current year. As has already been pointed out previously, it is becoming more and more evident that Germany, backed by the Imperial Government with a lavish expenditure on the St. Louis Exhibition, is going to make a high bid for a larger American export trade to the United States at what is considered to be a favourable moment, seeing the present exceptional prosperity in North America.

Berlin, March 13th, 1903.

Enclosure in Sir F. Lascelles' No. 51 Commercial of March 19, 1903.

MEMORANDUM on Germany and the St. Louis Exhibition.

The Budget Commission of the Reichstag, on the 17th instant, sanctioned almost unanimously the total grant of £125,000 to £150,000 for the St. Louis Exhibition, and the insertion of £75,000 as a first instalment for 1903.

Count von Posadowsky, in the course of the discussion, remarked that the German exports to the United States were increasing, whereas those of other countries were decreasing, and he said that English art was preferred in America, and that, consequently, Germans must suit their productions to American tastes. There would be special openings for haberdashery, in which Great Britain's exportation was on the increase, and in silk goods, in which Switzerland was a competitor. There were difficulties as to the Customs clearance of exhibits, in connection with the duties, but every effort was being made for more favourable conditions. Exhibitors were not to show masses of general articles, but only special things, and those of the best quality only.

Dr. Lewald, Commissioner to the Exhibition, then spoke of the advantageous site obtained for the German section. He mentioned that the textile industry and the machine industries were still hesitating about exhibiting on account of the great expense involved. The makers of railway engines, however, had decided to participate. The chemical, paper, and porcelain industries, as also the manufacturers of arms, were all exhibiting.

In the Prussian House of Deputies the sum of £5,000 has already been granted as a first instalment towards the exhibits at the St. Louis Exhibition of Educational Methods and Apparatus in Prussia.

Enclosure in Sir F. Lascelles' No. 104 Commercial, May 8, 1903.

MEMORANDUM on Germany and the St. Louis Exhibition.

The German Press calls attention to the appointment of the British Commissioner for the St. Louis Exhibition, and to the fact that £30,000 has been granted as a part of the total to be spent in 1903-4 for the expenses of participation.

It points out that great efforts are going to be made in the United Kingdom to get people to take part in the Exhibition as much as possible, and that the Prince of Wales has been named President of the Commission. It presumes that he, or some other member of the Royal Family, will be England's chief representative at the opening ceremony. If not, Mr. Chamberlain or Lord Roberts are looked upon as likely persons to be sent on behalf of the British Government.

The "Borsen Courier" says that the great efforts being made in Great Britain to have adequate representation of British products ought to act as a further inducement to German industrialists to extensively

exhibit in order to get in touch, not only with the people of the United States, but also with those of British North America and of the South American States.

Sir William Ward, H.B.M.'s Consul-General at Hamburg, has now furnished me with the statement asked for on the reduced sea freights for German exhibitors destined for the St. Louis Exhibition, which is enclosed herewith. It will be seen therefrom that the reductions are very extensive, varying from 18 per cent. to 62 per cent., according to the various classes of goods. If these rates be considered jointly with the reduced freights on the Prussian State Railways (already reported on), it is clear that the intending exhibitors at the Exhibition are to be extraordinarily favoured in conditions of transport.

Berlin, May 7th, 1903.

Enclosure in Sir F. Lascelles' No. 209 Commercial of October 9, 1903.

MEMORANDUM on Germany and the St. Louis Exhibition.

An important statement has just appeared in the German Press in connection with German exhibits at the coming St. Louis Exhibition. It is to the effect that permission has been obtained from the management for exhibitors, especially of "Art Industrial" products, to sell duplicates of the goods at the stalls allotted for their display. The conditions attached to such sales must be sought for by each individual exhibitor. A fee calculated at a certain percentage on the gross proceeds is to go to the Exhibition Authorities; these will be fixed according to the nature and character of the goods.

The Press notices on the subject, of which a copy is enclosed herewith, further state that persons desirous of making use of this privilege should communicate as soon as possible with the Imperial Commissioner for the Exhibition in order that he may be able to make the necessary arrangements with the Exhibition Authorities.

It is to be presumed that similar privileges have also been obtained by the British Government from the Government of the United States. No information is given here of the nature of the above-mentioned "conditions of sale," nor would it be obtainable except by interested parties. It would, therefore, seem to be desirable in the interests of British trade that efforts should be made immediately at St. Louis to obtain this information.

I would call attention to another step, no doubt taken at the instigation of the Imperial Commissioner to the St. Louis Exhibition, recently taken by the two great steamship companies, the North German Lloyd and the Hamburg American Lines.

It appears that a reduction of 20 per cent. will be made for all exhibitors and their employees on the first class fares (including those on the express boats) between the ports of Hamburg and Bremen and that of New York, both on the outward and return voyages, on the condition that the former takes place between December 1st, 1903, and June 30th, 1904, and the latter begins on any date after August 1st, 1904, and, provided that the price thus obtained is not lower than the minimum charge for the particular steamer and voyage (which differs according to the time of year). No reductions, or only small ones, will be made for passengers booked at the lower rates. To obtain these privileges a certificate is required, which, presumably, is only issued by the Imperial Commissioner.

This active official has by a circular letter invited the manufacturers of motor-cars to take part in the Exhibition in Group 72; and it is stated that they are likely to largely participate.

Finally, it may be mentioned that, as is well known, the central "facade" of the Royal Palace of Charlottenburg is to be reproduced at St. Louis. The German Commissioner has further announced that the Emperor has authorised the use of some of his furniture, Gobelin tapestries, and silver table decorations to be used in decorating the "German House."

Berlin, October 10th, 1903.

Report by Consul-General Sir Francis Oppenheimer on Participation in International Exhibitions.

British Consulate-General,
Frankfort-am-Main,
16th February, 1907.

Sir,—I have the honour to acknowledge the receipt of your Excellency's despatch, dated February 4th, in connection with the information to be collected by the International Exhibitions Committee in England, and asking what are the opinions of British merchants in foreign countries with regard to the local effect of exhibitions on British trade and prestige; also asking for any observations which I should be able to make on the subject.

In reply I beg to state as follows:—

No British merchants of importance reside within the district of this Consulate-General. The opinion now submitted has been gathered from people connected with very important German houses, and, as far as I can judge, deserves every consideration, as, *mutatis mutandis*, it may be supposed to apply to British manufacturers also.

There can be no doubt that, generally speaking, the great international exhibitions are no longer regarded as blessings by manufacturers of standing. During recent years the aversion has greatly increased, and it has always required considerable pressure on the part of the Government to induce the leading firms in the various trades to participate in any one of the vast exhibitions, even after the Government had decided that Germany should be officially represented. In some cases the Government had to go so far as to place special orders with leading firms of manufacturers to ensure their participation; such orders may be regarded as subsidies.

The leaders of industry complain that the international exhibitions having developed into pleasure shows and fairs, the participation in these vast exhibitions causes considerable inconvenience, demands great financial sacrifices, and entails considerable risks.

The inconvenience is caused by the fact that current work has to be stopped, and the best men of the factory, engineers as well as workmen, are compelled to waste their time on show-pieces.

The financial sacrifice is caused by the fact that the pieces manufactured for the exhibition are mostly "ideal" pieces, for which customers are not easily found, but if found, certainly not at adequate prices. As an advertisement the cost bears no proportion to the result, as in most cases the cost falls most heavily on those who occupy so prominent a position in the trade that they do not require advertising on such a scale. The cost is so great, because these exhibitions are kept open without any regard to trade interests, and as long as possible to secure a financial success from the receipt of the gate-money. While the exhibition is open no article may be, as a rule, removed, and articles which can only be appreciated working must be kept working during the whole period.

The risk entailed concerns the publicity which is by "show models" given to the latest achievements, many of which cannot be protected by patents, but all of which are openly displayed. If old models were shown the purpose of the exhibition would be frustrated; the more recent the models are, the greater becomes also the temptation for pirates to copy. There is this risk also, that pieces sent to exhibitions are "finished" as no pieces are finished for ordinary trade purposes, so that if orders are placed in consequence of show-pieces, there must needs follow the discontent of buyers with the goods subsequently delivered, which do not look as neat as the ones shown, though from a working point of view they are in every way as good (*e.g.*, chassis of automobiles). It is said that more especially mushroom firms resort to this trick of exaggerated finish to attract customers, and their mode of procedure compels other firms to do the same.

If some maintain that the vast exhibitions bring no advantage to the majority of the first-class exhibitors, because the more important orders would have been placed even without an exhibition, others maintain that such an opinion is extreme, and that there is a harvest, even if it be not in proportion to the labour and outlay. At the end of the last World's Fair at St. Louis, there was a general feeling in Germany that the orders placed in consequence of the exhibition were few and far between, and certainly below even modest expectations. I believe it was in consequence of a general opinion to this effect that the Imperial German Commissioner for the St. Louis Exhibition was instructed to work out a schedule of the orders which had reached Germany in consequence of the exhibition. I have not been able to ascertain here what was the result of the Commissioner's inquiry, as my informants seem to think that such a schedule must be even more deceptive than the ordinary run of statistics.

There seems a general consensus that the greater share of the benefit, whatever it be, falls to less-known firms, and for these an international exhibition undoubtedly offers opportunities. It is comparatively easy for them to arrange a good show, to which they can give ample time and attention; yet, those who look below the surface know that their shows are no guarantee for the excellence of future deliveries, so that, as far as they are concerned, the reputation of their particular industry runs the risk of injury rather than advantage as the result of such exhibitions. Yet it is their very presence that forces the more prominent works to entertain the idea of a participation, because otherwise the less-known firms might do the leading works lasting damage instead of securing a possible overflow trade. For the purposes of the exhibition such unknown firms are put on the same footing as the leading firms of the industry; for there is, as a rule, ample space, and the extent of a firm's exhibition is simply a question of rent. It is said that often the small firms are first approached by the promoters of these vast exhibitions, who use their promise of participation as the lever against the leading firms of the trade. One informant assured me that the manner in which the promised participation of the less-known firms was utilised by the promoters nearly approached blackmail.

In spite of the enormous number of medals and diplomas conferred upon German exhibitors at the St. Louis Exhibition, the result was, from a German point of view, declared a failure. To render any similar disappointment impossible in the future, it had been suggested that all exhibition matters should be brought by an Imperial law under permanent Imperial Parliamentary control. The Imperial Government did not see its way to going this length, but it has recently acted upon the suggestion by officially acknowledging a committee of the "Central-Verband Deutscher Industrielle" as a standing committee for exhibition matters. The work of this committee is to extend more especially to the following three headings:—

1. To collect all material at home, and as far as possible abroad, dealing with exhibitions, and thus, in course of time, to establish an archive for exhibition matters.

2. To examine the question of German participation in any exhibition, to make the necessary inquiries amongst the possible exhibitors, to ascertain the scale on which participation would be advisable, and to advise the Government accordingly; also to examine the question of German exhibitions, their scope, etc.

3. More particularly to make a firm stand against "bogus" exhibitions, and to warn the industrials, for in spite of repeated warnings in the Press, firms have always been found willing to listen to the tempting overtures—to their own ultimate detriment. Without such an advisory board it is often impossible for a foreigner to gauge the seriousness of an exhibition to which he is invited by circulars from abroad. Among some manufacturers, moreover, the collecting of medals and diplomas, which are lavishly bestowed by inferior exhibitions, has become a mania, and the exhibitor often finds that the fees of such patents more than wipe out the cheapness of the space allocated, which was the primary inducement for his participation. It may here be noted that while medals and diplomas are considered of no value in the case of articles which are only supplied to the trade, they are still deemed of value by all those manufacturers who offer their goods to the public direct (*e.g.*, articles of food, soaps, pills, etc.).

It is confidently hoped by many serious manufacturers that the work of this German committee may lead to what might be termed a "disarmament" amongst manufacturers, and that it will become easier for members of a particular trade to limit their exhibits or to stand aloof, because they will in future have some guarantee that their competitors will do so also.

That the above is, generally speaking, the opinion of the leading German industrials concerning international exhibitions on the vast modern scale may be gathered from the singular fact that in Germany the idea of a World's Exhibition has never found favour, and that Germany is the only one amongst the leading industrial countries which has never held any such exhibition.

Special exhibitions (embracing only a special industry—trade exhibitions, so to say) are viewed in an entirely different light. They are regarded as a useful institution, and the favour with which they are received greatly adds to their success. The recent Dusseldorf Exhibition (though it was only national) is a good case in point. It had been convened to give as near a complete picture as was possible of the Rhenish iron industry; it achieved its purpose, met with undisputed praise, and is said to have brought tremendous advantages to that particular industry as a whole. There is no doubt that for the serious manufacturer it becomes an easier matter there to exhibit than in a general exhibition, for the exhibits are addressed, so to say, to those only interested in a particular branch of manufacture; current work can be exhibited, and its workmanship can be appreciated; the specialities of the various firms can be distinguished, for those to whom they are shown are experts, and it becomes a difficult matter for the outsider to make a hit (unless his work really deserves it), as his circumstances are more intimately known, or can be easily ascertained. These trade exhibitions, moreover, can be more easily limited in time, for the trade papers advertise the exhibition, and those interested will attend soon after the opening, so as to be the first in the field. The public being limited *ab initio*, the speculative element, which has turned the international exhibitions into fairs, is discarded. Again, the limited size of the trade exhibition renders an examination possible without undue fatigue. It is said that for such exhibitions a Government subsidy is approved, even outside the trade more immediately interested, because the sum needed to ensure success is much smaller than that needed for the participation in international exhibitions, and is sure to become a better national investment; it never can be called frivolous—the term applied by one of my informants to the subsidies granted for the world's fairs.

It is sincerely to be hoped that, whenever possible, British industry will make an effort to participate in international trade exhibitions.

I have the honour, etc.,

(signed) F. Oppenheim.

His Excellency the Right Hon. Sir Frank C. Lascelles, G.C.B., G.C.M.G., H.B.M.'s Ambassador Extraordinary and Plenipotentary, etc., etc., etc., British Embassy, Berlin.

Report by Consul-General Sir William Ward on Participation in International Exhibitions.

British-Consulate-General,

Hamburg,

February 16th, 1907.

Sir,—In accordance with the instructions conveyed to me by Your Excellency's despatch of the 4th instant, with reference to the inquiries which are being made at present by the International Exhibition Committee in England on the methods and policy pursued in foreign countries in regard to official participation in great International Exhibitions, I have the honour to report as follows:—

There are in the Hamburg district only a very small number of British merchants and British manufacturing firms, and amongst the latter there are only a very few of importance. It is, of course, rather the manufacturers than the merchants who take any direct interest in the question of participation in exhibitions, whether they are of an international, national, or merely of a local character. As far as I am able to ascertain, the British industrial firms established in this district, as elsewhere in Germany, have of late years, upon the whole, become tired of taking part in great exhibitions, owing on the one hand to the very considerable expense which is entailed upon exhibitors thereby, and to the uncertainty, not to say improbability, of the practical results which follow such participation being greater than the expense incurred.

The very high, and often prohibitive, duties imposed in many countries in the world on most manufactured goods are likewise obstacles to the participation of British (and other) manufacturers of the description of the goods in question in large International exhibitions held in such countries. The majority of the public, moreover, which visit large International exhibitions, rarely do so for *business* purposes, and take comparatively slight interest in, and have little knowledge regarding, the industrial products exhibited; but they look chiefly to enjoying the amusements and refreshment arrangements which are provided at these shows.

The kind of exhibition—international, national, or local—which has of late years been—and which continues, it appears, to be—regarded with most favour in this and other countries, and which is considered to offer most chances of success to exhibitors, and show best the progress which has been made in the industries in question, are exhibitions which are confined to *special branches* of industry or art. Some of these Exhibitions—for instance, the German National Exhibition of Machinery, at Dusseldorf, in 1904—have been very successful, both as financial undertakings and for the special branches of German manufacturing industry presented there.

Whilst there appears, as already observed, little or no disposition of late years amongst British manufacturers in this and other parts of Germany to participate in International exhibitions held in this or in other countries, and whilst the participation of British manufacturing firms in a local International Industrial Exhibition, held for instance at Hamburg (or elsewhere in Germany) would hardly contribute towards developing the import trade in British manufactured goods to *Germany itself*, owing to a great degree to the prohibitive German import duties on most manufactures, it should be here observed that there are many descriptions of British manufactured goods, the exhibition of which at Hamburg might very likely lead to the development of the export trade (in such goods) *from Hamburg to other countries.*

The attention of Hamburg export firms would, on such an occasion, be drawn to the suitability and advantages offered by many kinds of British manufacturers, as compared with the same description of goods manufactured elsewhere; and British exhibitors would have an opportunity of arranging with leading "export agents" at Hamburg, with a view to having their goods kept permanently before their notice. It would, indeed, according to my humble opinion, be a very desirable arrangement if, in order to push the export trade in British manufactured goods from Hamburg to oversea countries, a *permanent Exhibition* (or a Commercial Museum) of samples of the British manufactures most suited for such export trade could be established here, so that Hamburg export firms could at all times make their choice by personal inspection of the goods, and have at the same time an insight into description, quality, and prices of the same. Such a permanent Exhibition might well be established by the co-operation of British Chambers of Commerce and other commercial bodies, and industrial British traders and manufacturers interested in the development of British export trade.

In connection with these latter remarks, I may perhaps be permitted finally to remark that, according to my humble opinion, every British manufacturer wishing to do business in any part of the world would do well to have an *agent resident at Hamburg* (and working in commission), whose business it would be to keep the manufacturer well informed as to any inquiries from other countries which would be of interest to the former, and who would also make it his business to call from time to time on the leading exporters of the port. A very large share of all foreign export trade (for instance, to South America, etc.) is at present done through *Hamburg* firms.—I have, etc.,

(Signed) William Ward.

Report by Consul-General Mulvany on Participation in International Exhibitions.

British Consulate-General,
Dusseldorf,
28th February, 1907.

Sir,—In reply to Your Excellency's despatch of the 4th instant, I have the honour to report that there are but few British merchants in this consular district, and that some of them are not in favour of exhibiting as a means of advertising, while others appear to have but little knowledge of the subject in this country, where their industry is not long established; but from one firm in Cologne I hear that they are greatly impressed with the importance of International exhibitions and consider that of all things, as proved by experience, German merchants and manufacturers are likely to avail themselves extensively of the advantages of a British International exhibition, as they did also of exhibitions in America, France, and Belgium. But they state that it would be necessary to approach likely exhibitors in a suitable manner, and by extensive advertisements, with which latter opinion I entirely agree. Your Excellency will be aware that exhibitions so far held in Germany have been of a national or provincial character—for instance, those at Dusseldorf, 1880, and 1902 and 1904, which proved to be in the local interests of the manufacturers, and, indeed, of industry generally in Germany, an immense success. The two former consisted of expositions of industry and fine arts; the latter was international, including only fine arts, horticulture and agriculture. The pictures from Great Britain were selected through the medium of a German committee, and, unfortunately, not from the best British painters, *i.e.*, with few exceptions. In the horticultural and agricultural department, Great Britain did not participate to any considerable extent, whereas France, Belgium, and Holland were extremely well represented.

Germans have certainly recognised the great advantage of this means of making their products and manufactures known before the world. Financially the exhibitions at Dusseldorf yielded a large profit; that of 1902 having a surplus of some £50,000. The town and environs gained also great advantages from the influx of visitors from all parts of the world. And the German industrial men attribute the increase of exports, especially in the iron and steel trade to England, in a great measure to the Dusseldorf Exhibition.

I have the honour to be, etc.,
(Sd.) T. R. Mulvany.

British Consulate-General,
Dusseldorf,
D. 5th March, 1907.
R. 6th March, 1907.

Sir,—I have herewith the honour to confirm my despatch of the 28th ultimo, *re* Exhibition question, and to forward herewith a letter I have since received from the manager of Twyford's works at Ratingen, Dusseldorf, which gives an opinion that may be of interest in this matter, as, of course, it is desirable in an International Exhibition that a careful selection of exhibits be made.

I have the honour to be, etc.,
(Sd.) T. R. Mulvany.

The Right Hon. Sir Frank Lascelles, K.C.B., etc.

(Copy of letter from Twyfords Werke to T. R. Mulvany, Esq.)

Dear Sir,—In reply to your inquiry dated 6th February, I beg to state that, in my opinion, if proper care is taken to select only firms of standing to take part in the British section of an International Exhibition, the result on British trade and prestige in foreign countries will be satisfactory; but it is questionable whether the necessary supervision is always exercised in selecting firms at home. It seems to resolve itself into taking any firm, whether of standing or not, that is willing to go to the expense of taking space. Writer was in the Milan Exhibition last year towards the close, and received a distinctly unfavourable impression of the British section. I found our country represented to a not inconsiderable extent by comparatively unknown firms, and a number of these were engaged in selling 1s. and 6d. "diamond" brooches and scarf-pins to the public. I do not consider exhibitions under such conditions are calculated to increase British prestige to any great extent.

Your obedient servant,
(Sd.) Thomas W. Twyford.

APPENDIX C.

Reports by H.M. Representatives Abroad.

V.—ITALY.

The policy pursued by the Italian Government in respect to participation in International exhibitions held abroad may be summarised as follows:—

In the absence of special political considerations, the Italian Government holds entirely aloof from any participation in exhibitions which are not judged to be of particular interest for Italian industry or agriculture. On the other hand, if invited to participate in an exhibition which, although not of special importance to national production, is yet considered capable of advancing the general economic interests of the country, the Government, without participating officially, gives the undertaking its moral support by spreading notices throughout the country of the proposed exhibition, by publishing the programme and regulations pertaining thereto in its official organs, and, should the number of Italian exhibitors be sufficiently large, by sanctioning the temporary exportation of the goods to be exhibited, and by taking steps to obtain specially reduced transport rates for exhibits both by rail and sea. At times, even a small Government grant may be made, commensurate with the number of Italian exhibitors and the importance of the exhibition.

When, however, an International exhibition is of a universal character, and assumes such importance that the Government considers it advisable to participate officially, Parliament is asked to make a special grant for the purpose of defraying the necessary public expenditure. The amount voted appear in the Budgets of the Ministry of Agriculture, Industry and Commerce, and are generally spread over two or more financial years.

In the course of the last twenty years the Italian Government has officially participated in four great International exhibitions abroad, viz., those of Paris in 1889 and 1900; that of Chicago in 1893; and that of St. Louis in 1904.

The total amounts voted by the Italian Legislature for official participation in the three last-named exhibitions and for the organisation and preparation of exhibits were as follows:—

—	Sums Voted.	Sums Spent.	Sums Economised.
	£	£	£
Chicago Exhibition, 1893	8,800	8,000	800
Paris Exhibition, 1900 -	88,000	76,800	11,000
St. Louis Exhibition, 1904	36,200	35,300	900

The figures relating to the Paris Exhibition of 1889 are contained in State archives, which are not readily accessible.

In the case of the Paris Exhibition of 1900, the preliminary sum voted was £36,000. This amount, however, was increased by subsequent votes to £88,000. The surplus shown of £11,200 was held in reserve, and eventually added to the credit voted for the St. Louis Exhibition of 1904.

The administration of these funds was in each case entrusted to a Royal Commission nominated by the Minister of Agriculture, Industry and Commerce. The Commission held its sittings in Rome, and was presided over by the Minister in person.

The Commissions consisted of representatives of different Government Departments, of Chambers of Commerce, and of various industrial, agricultural, and mining institutions. Further, nominations were given to Members of Parliament, as well as to prominent artists, engineers, and architects.

The executive staffs were elected from among the members of the Royal Commissions, and to these bodies were entrusted the work connected with the organisation and preparation of exhibits. In order to facilitate operations, the executive staffs were divided into a number of small sub-committees, each sub-committee being assigned to particular groups of exhibits.

The Central Commission dealt with the credits voted at its own absolute discretion. Generally speaking, grants were allocated according to the importance of the different groups, and in proportion to the number of exhibitors in each group.

With a view to obtaining representative exhibits, notices were circulated by the central executive staffs among Chambers of Commerce and industrial and agricultural institutions throughout the country. Local committees were then formed, to whom, in the first instance, applications for the acceptance of exhibits had to be addressed. The final right of selection, however, rested with the central executive staff. The system of "collective" or "selected" exhibits seems to have been generally followed, with a view to showing what was best in each branch of industry. In every case the names of the owners or manufacturers of the different exhibits were clearly displayed.

The owners of exhibits were called upon to defray all expenses connected with packing, transport, and insurance. On the other hand, the costs of unpacking, installation, maintenance in repair and repacking were borne by the Commission. Arrangements were made by the Government for enabling exhibitors to obtain specially reduced rates of freight for their goods both by land and sea.

The sale of goods during the exhibitions appears to have been absolutely unrestricted, provided that no exhibit of importance was removed until after the close of the exhibition.

The allocation of the space put at the disposal of the Italian Commissions was made by the central executive staffs as far as possible in proportion to the importance of the various groups of exhibits.

The cost of the principal Italian pavilion at the Paris Exhibition of 1900 amounted to £20,000. For the furnishing and arrangement of the various sections a sum of about £8,000 was expended. These sums included all costs connected with the necessary installations for illumination, motive power, etc. A further sum of about £4,000 was expended on secondary pavilions.

At the close of the exhibition the pavilions were demolished and the sites returned to the exhibition authorities in the same condition in which they were taken over. In accordance with an agreement between the French building contractors and the Italian Commission, the former had right of disposal of all material obtained in the process of demolition. Furniture and fittings, however, were sold for a trifling sum.

The cost of the Italian pavilion at the St. Louis Exhibition of 1904 amounted to £8,000. At the close of the exhibition the pavilion was demolished, and the material obtained from the demolition was assigned to the contractor as compensation for labour.

No statistics are available at the Ministry of Commerce here as to the number of Italian exhibitors in the different groups at the exhibitions of Chicago,

Paris, and St. Louis. Lists, if required, both of exhibitors and awards might doubtless be obtained from the United States and French authorities.

The question as to whether Italian manufacturers are generally willing or not to take part in International exhibitions would appear to depend largely on the reputation and previous record of each individual firm. Business houses whose reputation is firmly established and who have already gained distinctions at previous exhibitions are often reluctant to incur the expense of furnishing further exhibits. On the other hand, manufacturers who are as yet little known are only too glad to avail themselves of the opportunity of advertisement, and of obtaining awards which they hope will afford a guarantee to their customers of the excellence of their productions.

In reply to my question as to what was the opinion of British merchants in Italy with regard to the local effect of exhibitions on British trade and prestige, the following resolution was passed at a recent meeting of the Executive Committee of the British Chamber of Commerce for Italy :—

"The Executive Committee of this Chamber is of opinion that as regards Italy, if the United Kingdom participated officially and *adequately* at great International exhibitions, the local effect on British trade and prestige would undoubtedly be good.

"This Committee considers that it would be advantageous if local resident British merchants were strongly represented on every official Exhibition Commission, as they are in the best position to know the requirements of the country in which they reside and trade, and would be qualified to guide and advise British exhibitors, as well as to make arrangements locally with the authorities and others."

As far as I have been able to ascertain, it is not proposed to hold any great International exhibition in Italy in the near future.

I enclose for the information of the International Exhibition Committee a copy of the law, decrees, and regulations for the Italian section at the International Exhibition of Paris of the year 1900. This work contains much detailed information on the various points formulated by the Committee, and may be found convenient for reference.

A. Percy Bennett.

Rome, March 29th, 1907.

APPENDIX C.

Reports by H.M. Representatives Abroad

VI.—SWITZERLAND.

Question 1.—Quels sont les principes observés par le Gouvernement suisse pour l'acceptation d'invitations à participer officiellement à des expositions internationales?

Réponse.—Lorsque la Suisse est invitée par un Gouvernement étranger à prendre part officiellement à une exposition internationale, le Conseil fédéral, soit son Département du commerce, fait procéder, par l'organe des Gouvernements cantonaux, des grandes associations industrielles, commerciales et agricoles, et des Commissions spéciales, à une enquête ayant pour but de fournir des renseignements précis sur les dispositions qui règnent dans les sphères intéressées du pays au sujet de la participation à l'entreprise projetée et sur la question de savoir si l'on pourrait compter sur un concours suffisant des diverses branches de l'activité nationale.

Les résultats de cette enquête servent de base au Conseil fédéral pour prendre attitude. Si cette autorité considère que les circonstances permettent d'accepter l'invitation, la question est portée, par un message spécial, devant l'Assemblée fédérale qui est seule compétente pour prendre une décision définitive et pour accorder le crédit qui sera affecté à l'organisation officielle de la participation suisse et aux dépenses de divers ordres que la Confédération prendra à sa charge afin d'alléger les exposants.

Question 2.—Quelles sont les expositions auxquelles la Suisse a participé pendant les vingt dernières années?

Réponse.—La Suisse a participé officiellement aux expositions suivantes:—

Exposition universelle de Paris en 1889.
Exposition universelle de Chicago en 1893.
Exposition universelle de Paris en 1900.
Exposition internationale de Milan en 1906.

Pendant la même période, des industriels suisses ont pris part, généralement en très petit nombre, à d'autres expositions internationales, p. ex. Barcelone, Bruxelles et Melbourne en 1888, Anvers et Lyon en 1894, Bordeaux en 1895, Bruxelles en 1897, Liège en 1905; mais ils l'ont fait à leurs frais, périls et risques, et sans le concours ni l'intervention des autorités fédérales.

Question 3.—Quelle est l'importance de sommes allouées, dans chaque cas, par l'autorité suisse pour la participation, la préparation et l'organisation officielles et quel est le montant réellement dépensé?

Réponse.—Pour l'Exposition universelle de Paris en 1889:—

Crédits alloués, f.600,000; sommes dépensées, f.604,457.15; l'excédent de dépenses s'élevant à f.4,457.15 a été également supporté par la Confédération.

Pour l'Exposition universelle de Chicago en 1893:—

La participation officielle de la Suisse a été limitée à l'horlogerie et à la sculpture sur bois; mais la Confédération a envoyé à Chicago un certain nombre de délégués pour étudier l'exposition dans son ensemble. Les crédits alloués par les Chambres fédérales se sont élevés à f. 275,000, somme qui a été totalement dépensée.

Pour l'Exposition universelle de Paris en 1900:—

Crédits alloués, f.1,650,000. Dépenses réelles f.1,520,131.53.

Pour l'Exposition internationale de Milan en 1906:—

Crédits alloués, f.600,000. La dépense réelle n'est pas encore connue.

Divers cantons, tels que Berne, Vaud, Neuchâtel, Genève, etc., ont en outre voté des subsides destinés à réduire dans une certaine mesure les dépenses restant à couvrir par leurs propres exposants en sus de celles que la Confédération avait prises à sa charge.

Question 4.—Par quelles corporations ou organisation les crédits ont-ils été accordés, dans chaque cas?

Question 5.—Quelle est la composition de ces corporations et par qui sont-elles nommées?

Réponse aux Nos. 4 *&* 5.—Les crédits sont alloués par l'Assemblée fédérale (Conseil national et Conseil des Etats).

Question 6.—Quelles sont les règles suivies pour la fixation des principaux postes de dépense et quel a été le motant fixé pour les principales industries ou les groupes d'industries les plus importants?

Réponse.—La Confédération prend à sa charge pour la participation officielle de la Suisse à des expositions internationales, les frais suivants:—

(a) D'Administration et notamment de la commission centrale, du commissariat général, des commissions spéciales, des experts et du jury.

(b) Des expositions préalables.

(c) Des imprimés de toute espèce, du catalogue, du rapport administratif et des rapports techniques.

(d) De transport, depuis les lieux de dépôt en Suisse, qui seront désignés, jusqu'à l'exposition et retour à la station de départ pour tous les objets à exposer arrivés, en temps voulu, sur les lieux de dépôt, ainsi que pour les vitrines admises par le commissariat général, y compris les produits dont la nature exige le transport par grande vitesse. La Confédération prend, en outre, à sa charge les frais de transport des objets qui doivent figurer à l'exposition des beaux-arts, même s'ils sont expédiés de stations situées hors de Suisse.

(e) Des constructions nécessaires dans les divisions suisses, du revêtement des parois et plafonds, de l'installation des cloisons, podiums, tableaux indicateurs des groupes, décorations générales, des travaux de fondation pour les machines, des conduites de raccordement pour la vapeur, le gaz et l'eau et des conduites pour la force électrique.

(f) Du déballage et du reemballage des objets, ainsi que de l'emmagasinage des caisses.

(g) De l'installation des objets exposés, de la surveillance et du bon entretien des objets exposés et du mobilier de l'exposition en tant que ce service n'exige pas des connaissances spéciales et professionelles.

(h) Du transport aller et retour des animaux vivants depuis la station de chemin de fer la plus rapprochée du domicile de l'exposant jusqu'à l'exposition; des frais d'accompagnement, d'entretien, de soin et de nourriture des animaux pendant leur transport et la durée de l'exposition.

(i) D'assurance de transport depuis les dépôts jusqu'à l'exposition et retour, d'assurance contre l'incendie, le vol et tous les risques pendant la durée de l'exposition, de l'assurance des animaux vivants contre tout dommage pendant le transport et l'exposition du bétail.

(k) Le surcroît de frais qui serait occasionné aux exposants par suite d'arrangements collectifs dans les groupes ou subdivisions particuliers, ainsi que le montage des machines jusqu'à concurrence de la somme totale prévue au budget pour ces dépenses.

Tous les exposants, quel que soit le groupe l'industrie auquel ils appartiennent, sont placés, à l'égard de ces avantages, sur un pied de parfaite égalité.

Le projet de budget des frais qui incomberont à la Confédération est établi non pas par industries ou

groupes d'industries, mais par catégories de dépenses en tenant compte, pour les évaluations, des expériences déjà faites dans de précédentes expositions, de l'importance de la participation suisse à la nouvelle entreprise en ce qui concerne le nombre des exposants, la quantité et la valeur des produits qu'ils y feront figurer, etc.

A titre d'exemple, voici le projet de budget pour la participation suisse à l'exposition universelle de Paris en 1900.

	Compte de 1889.	Budget pour 1900.
	Fr.	Fr.
1. Administration générale avant l'ouverture de l'exposition	51,312·02	126,000
2. Administration à Paris	57,857·34	90,000
3. Jury international	52,247·71	60,000
4. Catalogue	3,312·06	5,000
5. Assurance de transport et assurrance contre l'incendie	25,241·35	40,000
6. Installation, montage	23,614·09	95,000
7. Service de sûreté	35,162·70	60,000
8. Emmagasinage des caisses	9,443·05	15,000
9. Emballage pour le retour	12,342·05	25,000
10. Exposition des beaux-arts	14,458·22	30,000
11. Exposition d'animaux vivants	31,833·—	100,000
12. Exposition laitière	——	
13. Constructions :		
(*a.*) Honoraires, salaires, constructions	132,614·41	320,000
(*b.*) Fondations de machines, conduites, etc.	11,787·38	140,000
(*c.*) Vitrines et décorations	7,666·99	200,000
14. Frais de transport	85,969·96	210,000
15. Collections	13,974·50	20,000
16. Rapports	20,155·50	30,000
17. Divers et imprévu (expositions centennales)	10,445·62	84,000
En chiffres ronds	600,000	1,650,000

Comme cela est indiqué dans la réponse à la Question 3, les dépenses réelles ne se sont élevées qu'à f.1,520,131.53, restant ainsi de f.129,868.47, inférieures aux previsions.

Question 7.—Quelle a été la composition des organes chargés d'organiser et de préparer la participation ?

Réponse.—Dans la plupart des cas, les organes suisses aux expositions universelles sont : une commission centrale, les commissions spéciales nécessaires et les experts, les membres du jury et un commissariat général. La commission centrale est nommée par le Conseil fédéral qui tient compte, dans ses choix, les différentes branches de production participant à l'exposition. Elle est présidée par le chef du Département fédéral du Commerce, de l'Industrie et de l'Agriculture. La commission centrale donne son avis sur toutes les questions de principe qui lui sont soumises par ce Département ou par le commissariat général. Elle fait au Département des propositions pour le choix des experts, des commissions spéciales et commissaires spéciaux, ainsi que pour la nomination des membres suisses du jury international.

Elle statue comme tribunal arbitral et tranche en dernier ressort tous les différends qui naîtraient entre les exposants et le commissariat général.

Les commissions spéciales, commissaires spéciaux et experts sont nommés par le Département fédéral du Commerce, de l'Industrie et de l'Agriculture sur la proposition de la commission centrale. Ceux-ci ont essentiellement à conseiller et à soutenir le commissariat général, notamment dans ses relations avec les exposants, pour la répartition de l'espace entre eux, pour l'examen ou l'exposition préalable des objets présentés, pour le réception et l'installation de ces objets à l'exposition même, pour la répartition des frais éventuels à la charge des exposants ou des subsides à leur allouer, etc.

Les membres suisses du jury international sont désignés par le Conseil fédéral sur la proposition de la commission centrale.

Le commissaire général suisse, cas échéant son suppléant, et le secrétaire général sont également nommés par le Conseil fédéral.

Le Commissaire général représente les autorités et les exposants suisses vis-à-vis du gouvernement et du commissaire général du pays où a lieu l'exposition, ainsi que des commissaires généraux des autres Etats.

En dehors re l'administration générale, le commissaire général est spécialement chargé :—

(a) De l'élaboration de tous les projets et propositions à soumettre à la commission centrale ; de l'établissement des devis.

(b) De l'administration financière et du rapport final administratif et financier.

(c) Des relations avec les exposants.

(d) De la division des exposants et de la répartition entre eux de l'espace obtenu.

(e) De toutes les mesures concernant le mobilier, les décorations et l'installation individuelle ou collective des objets exposés.

(f) D'ordonner les expositions préalables.

(g) De la réception, expédition, assurance et réexpédition des objets exposés, de leur déballage, installation et réemballage en tant que les exposants ne désirent pas s'en charger aux-mêmes à leurs propres frais, en observant à cet égard des prescriptions reçues.

(h) De la surveillance des objets exposés, ainsi que

des soins nécessaires pour pouvoir, dans la mesure du possible, à leur protection et conservation.

(i) De la comptabilité et de la perception des frais incombant aux exposants.

(k) Des contributions au catalogue général et de l'élaboration d'un catalogue spécial suisse en une ou plusieurs parties.

Question 8.—Quelle somme a coûté le Pavillon de chaque exposition et quel a été le produit de sa vente après la clôture de l'Exposition?

Réponse.—La Suisse n'a jamais contruit de Pavillon spécial où auraient été réunis en un seul tout les objets qu'elle exposait. Ceux-ci ont été chaque fois placés dans les divisions générales de l'Exposition auxquelles ils appartenoient par leur nature et par leur genre.

Question 9.—Quelles ont été les méthodes employées par les organes d'exécution pour obtenir les objets exposés par chaque industrie et les règles suivant lesquelles ces objets ont été acceptés?

Question 10.—Les organes exécutifs exerçaient-ils un droit quelconque en ce qui concerne le choix des objets offerts, ou bien toutes les personnes désirant exposer étaient-elles traitées de la même manière, quelle que fût la valeur on l'utilité de leurs marchandises? En d'autres termes, les organes exécutifs organisaient-ils une exposition collective, c'est-à-dire une exposition de choix à seule fin de présenter ce qu'il y avait de mieux dans chaque branche ou industrie, ou admettaient-ils pour l'exposition les marchandises similaires de divers degrés de qualité, de fabrication et d'achèvement de toutes les personnes ou raisons sociales qui désiraient être représentées?

Réponse aux Nos. 9 *et* 10.—Au cours de l'enquête mentionnée dans la réponse au chiffre 1, les personnes, raisons sociales, etc., disposées à prendre part à l'exposition, indiquaient dé jà la nature et le genre des produits qu'elles avaient l'intention d'y faire figurer.

En règle générale, les objets annoncés ne sont acceptés qu'après examen préalable par des experts spéciaux.

Des expositions collectives se composant uniquement d'objets choisis par des experts ont été organisées:—

A Paris, 1889, pour les Beaux-arts, l'Horlogerie, les Gazes pour bluteries, les Vins et les Animaux vivants.

A Chicago, 1893, pour l'Horlogerie et la Sculpture sur bois.

A Paris, 1900, pour l'Horlogerie, les Peintures sur émail, les Vins, les Fromages.

A Milan, 1906, pour l'Horlogerie, les Vins, les Fromages, les Animaux vivants.

Question 11.—Dans les expositions collectives, les noms des propriétaires ou des fabricants étaient-ils appliqués sur chaque objet d'une façon bien visible?

Réponse.—Oui.

Question 12.—Quels arrangements ont-ils été pris avec les propriétaires des marchandises en ce qui concerne.—

(a) L'emballage;

(b) Le transport et l'assurance;

(c) L'installation et l'entretien;

(d) La représentation des raisons sociales individuelles dont les marchandises faisant partie des expositions collectives;

(e) La vente des marchandises pendant l'exposition;

(f) Le réemballage et la réexpédition des marchandises après la clôture de l'exposition?

Réponse.—ad a:—Pas d'arrangements spéciaux; l'emballage a toujours été à la charge des exposants.

ad b:—Les frais de transport et d'assurance ont toujours été supportés par la Confédération (*voir* litt. *d* et *i* de la réponse à la question 6).

ad c:—L'installation des objets exposés était à la charge de la Confédération; de même leur entretien s'il n'exigeait pas des connaissances spéciales et professionnelles; dane ce cas, par exemple pour l'horlogerie, la bijouterie, les boîtes à musique, la sculpture sur bois, etc., les exposants devaient y pourvoir eux-mêmes ou par des agents à leur solde *voir* litt. *g* de la réponse à la Question 6).

ad d:—Les maisons exposant individuellement dans les collectivités devaient désigner elles-mêmes leurs représentants. Ceux-ci étaient seuls responsables vis-à-vis d'elles, mais ils étaient tenus de se conformer, en ce qui concerne le service, aux ordres des commissaires officiels suisses.

ad e:—Aucune prescription n'a été établie par la Confédération au sujet de la vente des marchandises; les exposants pouvaient donc, sous leur pleine et entière responsabilité, en confier le soin à des agents qu'ils rétribuaient eux-mêmes; mais la vente ne pouvait, cela va sans dire, s'effectuer que dans les conditions et sous les réserves fixées par les règlements généraux ou les dispositions spéciales émanant des autorités du pays où avait lieu l'exposition.

ad f:—Le réemballage et la réexpédition des marchandises après la clôture de l'exposition ont eu lieu aux frais de la Confédération (*voir* litt. *d* et *f* de la réponse à la Question 6).

Il parait utils d'ajouter ici, à titre de renseignement, en ce qui concerne les frais de transport des objets destinés à une exposition à l'étranger, que la Confédération paie aux chemins de fer suisses la taxe pleine pour l'aller et que, pour le retour, ceux-ci transportent en franchise toutes les marchandises qui, n'ayant pas été vendues à l'exposition, rentrent au pays après sa clôture.

Question 13.—Par qui les frais d'administration étaient-ils payés et quelle était la part à supporter éventuellement par les propriétaires des objets exposés?

Réponse.—La totalité des frais d'administration ont été payés par la Confédération (*voir* litt. *a* et *c* de la réponse à la Question 6).

Question 14.—Quels ont été les principes suivis par le comité d'organisation pour l'attribution des emplacements:—

(*a*) à chaque groupe d'exposants,

(*b*) aux exposants individuels?

Réponse. — L'attribution des emplacements aux groupes d'exposants et aux exposants individuels n'a pas été et ne pouvait être faite d'après des principes déterminés. Les Commissaire et experts à qui cette tâche incombait (voir le 4e alinéa de la réponse à la Question 7), ont dû, dans chaque cas, tenir compte, d'une part, des circonstances spéciales, telles que dimensions, situation, sécurité offerte par les divers emplacements mis à la disposition de la Suisse dans les différentes parties de l'exposition; d'autre part, de la nature, de l'espèce, de la quantité, de la valeur, etc., des marchandises qui devaient y être installés. L'horlogerie, la bijouterie, les œuvres d'art et les autres objets précieux, par example, exigeaient des locaux fort bien construits et présentant, d'une-maniere générale, toutes les garanties désirables contre les dangers d'incendie, d'effraction, etc., tandis que pour des produits d'autres catégories, tels que les machines de tout genre, ces conditions-là n'étaient pas requises au même degré.

Question 15.—Quel a été le nombre total des exposants suisses dans chaque groupe et quelle a été la proportion de leurs récompenses par rapport à celles des exposants d'autres nationalités dans les même groupes?

Réponse.—Les tableaux ci-après indiquent le nombre total des exposants suisses dans chaque groupe et celui des diverses récompenses qui leur ont été décernées. Quant à la proportion entre les récompenses aux exposants suisses et à ceux d'autres nationalités, elle n'a pas été établie.

EXPOSITION UNIVERSELLE DE PARIS, 1889.

Groupes.	Exposants.	Hors concours.	Grands prix.	Médailles. Or	Argent.	Bronze.	Mentions honorables.	Exposants.	Collaborateurs.	Totals.
I. Œuvres d'art.	76	1	—	5	6	21	16	49	—	49
II. Education et enseignement :										
Exposants	308	3	12	29	55	46	42	187	—	203
Collaborateurs	—	—	—	5	5	4	2	—	16	
III. Mobilier et accessoires :										
Exposants	229	6	5	18	51	56	49	185	—	206
Collaborateurs	—	—	—	1	15	2	3	—	21	
IV. Tissus, vêtements et accessoires :										
Exposants	92	2	6	25	23	30	4	90	—	160
Collaborateurs	—	—	—	—	13	23	34	—	70	
V. Industries extractives ; produits bruts et ouvrés :										
Exposants	65	1	2	6	15	17	14	55	—	59
Collaborateurs	—	—	—	—	2	2	—	—	4	
VI. Outillage et procédés des industries mécaniques. Électricité :										
Exposants	125	3	6	21	35	27	13	105	—	137
Collaborateurs	—	—	—	3	15	9	5	—	32	
VII. Produits alimentaires :										
Exposants	195	—	2	25	47	50	39	163	—	163
VIII. Agriculture, viticulture et pisciculture :										
Exposants	19	—	—	2	—	3	1	6	—	6
IX. Horticulture :										
Exposants	3	—	—	—	—	—	2	2	—	2
Economie sociale :										
Exposants	3	—	—	2	—	1	—	3	—	3
Exposants	1,115	16	33	133	232	251	180	845	—	988
Collaborateurs	—	—	—	9	50	40	44	—	143	

Au concours animaux reproducteurs, 26 exposants suisses, sur 51, ont obtenu des distinctions consistant en :—

1 diplôme d'honneur ;

33 prix en espèces ;

7 mentions honourables.

EXPOSITION UNIVERSELLE DE CHICAGO 1893.

A cette exposition, la distinction consistait en une *médaille unique.*

Voici les résultats obtenus par les exposants suisses :—

I.—Département des Manufactures.

Division Industrielle.

Groupe *Horlogerie: A.* Montres. *B.* Outils, fournitures et pièces détachées d'horlogerie. *C.* Gravure-joaillerie.

Groupes divers.

Nombre d'exposants suisses 63, dont un hors concours et un qui a renoncé être jugé.

Exposants ayant concouru 61. Exposants récompensés 61.

Division Artistiques.

Groupe. *Sculpture sur bois.*

Exposants 40. Récompensés 22.

II. Département des Arts libéraux.

Groupes divers.

Exposants 9. Récompensés 7.

III. Département des l'Agriculture.

Groupes divers.

Exposants 6. Récompensés 6.

IV. Département des Transports.

Exposant 1. Récompensé I.

V. Département de l'Horticulture.

Exposant 1. Récompensé I.

VI. Département des Beaux-arts.

Exposant 1. Récompensé

VII. Département de l'Ethnologie.

Exposants 2. Récompensés 2.

EXPOSITION UNIVERSELLE DE PARIS 1900.

GROUPES.	Nombre des exposants.	Hors concours.	Grands prix.	Médailles. Or	Argent.	Bronze.	Mentions honorables.	Exposants récompenses.	Collaborateurs récompensés.	Totals.
I. Education et enseignement :										
Exposants	13	—	1	2	3	5	—	11	—	18
Collaborateurs	—	—	—	7	—	—	—	—	7	
II. Œuvres d'art :										
Exposants	141	3	1	9	15	29	23	80	—	80
III. Instruments et procédés généraux des lettres, des sciences et des arts :										
Exposants	84	8	7	15	18	19	8	75	—	100
Collaborateurs	—	—	—	2	15	7	1	—	25	
IV. Matériel et procédés généraux de la mécanique :										
Exposants	38	—	9	6	8	4	7	34	—	53
Collaborateurs	—	—	—	10	7	2	—	—	19	
V. Electricité :										
Exposants	29	3	4	6	10	1	1	25	—	39
Collaborateurs	—	—	1	2	5	6	—	—	14	
VI. Génie civil. Moyens de transport :										
Exposants	47	1	4	5	9	7	3	29	—	48
Collaborateurs	—	—	—	5	7	5	2	—	19	
VII. Agriculture :										
Exposants	25	2	1	5	8	4	—	20	—	21
Collaborateurs	—	—	—	1	—	—	—	—	1	
X. Aliments :										
Exposants	102	6	5	14	35	21	14	95	—	110
Collaborateurs	—	—	—	3	10	2	—	—	15	
XI. Mines. Métallurgie :										
Exposants	10	—	—	—	4	5	—	9	—	9
XII. Decoration et mobilier des édifices publics et des habitations :										
Exposants	42	—	—	8	6	16	10	40	—	45
Collaborateurs	—	—	—	1	3	—	1	—	5	
XIII. Fils, tissus, vêtements :										
Exposants	52	3	12	17	10	5	1	48	—	107
Collaborateurs	—	—	—	22	28	7	2	—	59	
XIV. Industrie chimique :										
Exposants	4	1	1	—	1	1	—	4	—	5
Collaborateurs	—	—	—	1	—	—	—	—	1	
XV. Industries diverses (entre autres horlogerie, bijouterie, etc.). :										
Exposants	108	7	10	20	27	26	13	103	—	120
Collaborateurs	—	—	—	4	9	2	2	—	17	
XVI. Economie sociale. Hygiène. Assistance publique :										
Exposants	35	1	4	11	4	4	4	28	—	36
Collaborateurs	—	—	—	4	3	1	—	—	8	
	730	35	60	180	245	179	92	601	190	791
Exposition laitière — Laits	3	1	—	1	1	—	—	3	—	3
Exposition laitière — Beurres	15	1	—	—	5	8	1	15	—	15
Exposition laitière — Fromages	137	1	1	41	64	28	3	138	—	138
	155	3	1	42	70	36	4	156	—	156

Question 16.—Les fabricants suisses participent-ils volontiers ou à contre-cœur aux expositions internationales?

Question 17.—Quelles sont les raisons que l'on fait généralement valoir :—

(*a*) pour, ou

(*b*) contre la participation aux expositions internationales?

Réponses aux Nos. 16 *et* 17.—On considère partout en Suisse que les expositions internationales sont trop nombreuses et se suivent à des intervalles trop rapprochés. Elles provoquent ainsi, au sein des sphères industrielles et agricoles, une lassitude générale, et, par suite de leur fréquence, leur utilité pratique est mise en doute.

Cependant les quelques industries qui ont la per-

spective de pouvoir vendre leurs produits à l'exposition (horlogerie, bijouterie, fromages) ou d'y prendre des commandes (machines), acceptent avec assez de facilité l'invitation à y participer; quant aux autres branches de la production nationale, elles ne s'y décident, la plupart du temps, que guidées par des motifs d'intérêt national et en vue de contribuer à maintenir les bons rapports internationaux existant entre la Suisse et les autres pays.

Question 18.*—(Le texte de ce numéro est biffé sur le questionnaire reçu.)

Question 19.—A-t-on l'intention d'organiser en Suisse, dans un avenir prochain, une grande exposition internationale et, dans l'affirmative, où doit-elle avoir lieu?

Réponse.—On n'a pas l'intention d'organiser prochainement en Suisse une exposition internationale.

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* NOTE.—Question 18 was not submitted to the Swiss Government, as it relates to the views held by British Chambers of Commerce and British Manufacturers. The proper answer according to Mr. Milligan, British Vice-Consul at Zurich, and until recently British Commercial Agent in Switzerland, is as follows:—"There are no British Chambers of Commerce in Switzerland, and British Trade has not derived any benefit from Exhibitions in Switzerland not having been represented at such Exhibitions. *See* despatch No. 23 Committee.

APPENDIX C.

Reports by H.M. Representatives Abroad.

VII.—UNITED STATES OF AMERICA.

During the last twenty years the United States Government have officially been represented in the following exhibitions:—

Melbourne	1888
Brussels	1888
Paris	1889
Brussels	1897
Paris	1900
Liége	1905

The appropriations granted for each of these were respectively $50,000, $30,000, $250,000, $5,000, $1,397,500, and $5,000.

The participation of the United States Government in any exhibition depends upon the action of Congress in whose hands rests the question as to what sum, if any, shall be appropriated for the purpose. When an invitation to participate in an international exhibition is received at the State Department, and the executive authorities of the Government consider that it is desirable the United States should be officially represented, the necessary papers are laid before Congress, generally with an estimate of the sum required. This estimate is liable to be much reduced by Congress, which has not perhaps been inclined to be very generous, with the notable exception of the appropriation granted towards the Paris Exhibition of 1900. The expenditure of the appropriation is generally under the direct control of the Chief Commissioner, the Acts of Congress usually only specifying what sums shall be devoted to the salaries of the Commissioners, etc., leaving the apportionment of the money amongst the different groups in the hands of the advisers of the Commissioners.

In no country are the sweet uses of advertisement better appreciated than in the United States, and American manufacturers are, generally speaking, not slow to avail themselves of the opportunity which an international exhibition affords them of making their products more widely known. This applies more particularly to those manufacturers who have already established an export trade, or to those who see a chance of introducing their goods into European countries. Such manufacturers regard an exhibition as a first class business proposition, and do not grudge the expense of setting up an exhibit, considering that they will be well repaid by an increase of orders from abroad. The United States Commission therefore can always reckon on receiving an enormous number of applications for space from such firms, and, were it not for the fact that the object aimed at by national participation in an exhibition is the adequate representation of the country in every branch of industry, the task of the Commission would be relatively light. But a perusal of the Commissioners' reports for the various exhibitions shows that it is by no means easy to arouse the interest of those manufacturers whose goods are not in the market abroad, or who would have to face strong European competition. The Director of the Department of Textiles, for example, in the Paris Exhibition of 1900 makes the following statement in his report:—

> "The indifference of textile manufacturers towards exhibiting is most pronounced, as the industries embraced in this Department largely form the manufacturing strength of the great European countries, and to seek trade in Europe in this line was considered like carrying coals to Newcastle. Consequently it appeared almost impossible to divert attention from filling orders at home to preparing an exhibit from which no benefit could result."

In an international exhibition, however, the credit of the United States largely depends on the country making a good showing in all the different Departments, and the various Commissions have generally succeeded in securing the co-operation of reluctant firms to a satisfactory degree. In the case of the Paris Exhibition of 1900, where a generous appropriation made it possible for the Commission to organise its efforts to the best advantage, a special Department was formed which devoted its energies to the work of stimulating the zeal of manufacturers. This Department obtained the co-operation of many firms who, had the question been left to their own initiative, would never have exhibited. It was pointed out to those manufacturers who were reluctant to compete with their European rivals, that the high quality of American goods could beat European produce in its own ground, and that as "few Americans realise the pre-eminence of America, and foreigners know it less," it was both their duty and to their advantage to exhibit. Such appeals to their patriotism and to their speculative instincts seems generally to have had a good effect.

Reluctance to exhibit, particularly among the leading manufacturers, was often due to business prosperity. It is indeed natural enough that a manufacturer who has made his name and whose goods are in great and constant demand, should think twice before undertaking the costly trouble of preparing a suitable exhibit when his factory is already taxed to its utmost extent in endeavouring to meet the orders flowing in upon it. Much difficulty was experienced on this score by the various Commissions; even in those classes where there were received overwhelming numbers of applications for space, it was found that such applications came in great part from firms of indifferent standing, while the leading producers were but poorly represented. In these cases special appeals were generally made by the Commissioners to the great firms, usually with satisfactory results.

There is no doubt that British trade and prestige can be materially advanced by participation in American exhibitions. Though the high tariff is in some respects a great hindrance to British imports, yet English manufacturers supply large quantities of high-grade goods to the United States which are at present not produced in the country itself. They are even able to compete to a considerable degree with American manufacturers on their own ground. On the whole British firms have been poorly represented in American exhibitions, which would seem to be regrettable in view of the fact that in spite of the tariff wall, British imports into the United States were in 1906 21 per cent. higher in value than in 1905, and 39½ per cent. higher than those of 1904.

Melbourne, 1888.

To meet the cost of the representation of the United States at this exhibition, Congress appropriated the sum of $50,000, to be expended at the discretion of the Secretary of State.

The United States was represented by a Commissioner, who had under him six Assistant Commissioners, of whom two were honorary, the American Consul-General at Melbourne, who was named Commissioner ex officio, and an officer of the United States Navy, who acted as Secretary and Disbursing Officer.

Of the appropriation, $20,000 were reserved by the Department of State for the remuneration of the Commissioners and for contingencies, the remaining $30,000 being at the disposal of the Commission.

It is obvious that with such a small sum at their command the Commission could not attempt anything on a very large scale. Valuable assistance was, however, rendered to American exhibitors, and, though no special United States building was erected, much was done in the way of construction and decoration in the various sections. The work of the Commission was performed in an economical manner. The total surplus remaining unexpended out of the appropriation, including the sum of $3,500 originally set apart by the State Department for contingencies, amounted to something over $12,000. Included also in this surplus is a sum of $1,150, which was realised at a sale of Government property after the exhibition had closed.

For the purpose of supplying information to intending exhibitors, offices were established at Washington and San Francisco, where applications for space were received. The exhibition authorities were at first

unable to provide all the space applied for by exhibitors from the United States, but finally the erection by the Melbourne officials of annexes increased the floor space sufficiently to meet the demand.

The funds at the disposal of the Commission were not ample enough to enable them to defray the expenses of transport, which were mostly borne by the exhibitors themselves, but the Commissioner was authorised to give assistance in a limited number of cases. The Commission was able to provide labour and bear some of the expenses of installing exhibits in the exhibition building and of removing them therefrom.

The number of exhibitors from the United States, arranged in groups, was as follows:—

Group	I. (Works of art)	7
,,	II. (Education, etc.)	41
,,	III. (Furniture, etc.)	40
,,	IV. (Glass and pottery)	3
,,	V. (Textiles)	22
,,	VI. (Raw and manufactured produce)	42
,,	VII. (Machinery)	136
,,	VIII. (Alimentary products)	25
,,	IX. (Sanitary and surgical appliances)	12
,,	X. (Agriculture)	1
,,	XI. (Horticulture)	2
,,	XII. (Mining industries)	8
	Total	339

American exhibitors received 222 awards, of which 114 were of the first order of merit, 58 of the second, 36 of the third, and 14 honourable mentions.

Brussels, 1888.

This exhibition, which was at first a private enterprise, was taken up officially by the Belgian Government at such a late date that by the time Congress had made an appropriation of $30,000 and a Commissioner had been appointed by the President, there only remained three weeks before the opening of the exhibition. Naturally, therefore, there was no time for the Commissioner to do much in the way of collecting or transporting exhibits from America. The approaching exhibition at Paris in 1899 also had a discouraging influence, with the result that exhibitors from the United States only numbered 74. Of the sum appropriated by Congress, but $17,113 were spent.

Paris, 1889.

By a joint resolution, approved May 10, 1888, Congress authorised the participation of the American Government in the exhibition to be held at Paris from May to October, 1889, and appropriated the sum of $250,000 to cover all expenses. The resolution directed the President to appoint, with the consent of the Senate, a Commissioner General, who should, under the general direction of the Secretary of State, represent the United States at the exhibition and control all the necessary expenditures and arrangements. Provision was also made for an Assistant Commissioner General, and nine scientific experts, likewise to be appointed by the President, who were assigned to the nine groups in which the exhibition was officially divided. The remuneration, payable out of the appropriation to the above-mentioned members of the staff, was laid down in the resolution, as also an allowance for clerk hire, as follows:—

Commissioner General	$10,000
Assistant Commissioner General	5,000
Scientific experts, at $1,500	13,500
Clerical service	15,000

The last item coverd the salary of a Secretary, who was appointed by the Commissioner General. A Chief Engineer was also appointed, who had charge of the distribution of the spaces to be allotted to the various exhibitors, and, in general, of all the details connected with the setting up and care of the exhibits.

According to the terms of the resolution, circulars were sent by the Secretary of State to the Governors of the various States and Territories, inviting them to participate, but the result was discouraging, and, with one or two small exceptions, no State or Territory made any exhibit.

No special American building was erected, as the amount of the appropriation did not justify the expenditure, nor could a proper site for the erection of such a building have been obtained at the late date of the acceptance of the invitation. There was no special collective American exhibit made by the United States, with the exception of that arranged by the Department of Agriculture, which will be dealt with later on.

For these reasons, the work of the Commission was mainly occupied with the distribution of information, the allotment of spaces to the exhibitors and the transmission of the exhibits to Paris.

An office was opened in New York, where the work of advertising, distributing information, sending agents to induce manufacturers to make exhibits, and, in some cases, to procure exhibits by purchase when they could be obtained in no other way, was carried on till all the exhibits had been collected and shipped to Paris.

Applications for space were referred to committees appointed by the Commissioner General. There was one committee for each class, also nine group committees and a committee of revision, the members of all these being men selected for their intimate knowledge of the subjects dealt with by the committee to which they were assigned. Great difficulty was met with in granting allotments owing to the excessive number of applicants. No charge was made for the spaces granted nor had the applicants to deposit a sum to be forfeited if they broke their agreements with the Commission, measures which the Chief Engineer recommends in his report, with the result that many firms had no compunction in withdrawing at the last moment, leaving spaces unfilled which need never have remained vacant. Some of these spaces were filled by exhibits that were offered later in Paris, but it was not always possible to obtain articles belonging to the same class as those for which the space had originally been awarded.

The Commission had very little money to devote to the necessary constructions and general decorations, and no funds at all to apply to the installation and adornment of individual exhibits. Each firm was therefore left at liberty to arrange its exhibit according to its own plans without any attempt being made to secure uniformity in construction and decoration.

The whole business of transport was attended to by the Commission, which forwarded all American manufactures and goods destined for exhibition free of charge from New York to the exhibition and back again from Paris to New York. The carriage of goods from any town of the United States to New York had to be paid for by the exhibitors themselves. 4,533 packages in all were shipped by the Commission from New York to the exhibition, at the cost of $26,026. The number of packages returned to the United States was 2,072, the difference being accounted for by the sales and donations of exhibits at Paris. It is a striking testimony to the efficiency of the transport service that out of the large number of cases shipped to Paris only two were lost.

The cost of unpacking and repacking goods was borne by the exhibitors, whose representatives were expected to provide the necessary labour, but in some cases where these had no agents on the spot the work was done by employees of the Commission and any expense incurred was charged to the manufacturers.

The Commission, while taking all reasonable precautions for the preservation of the exhibits, was not held liable for loss or damage to the goods either in transportation or while on exhibition. Insurance was at the option and cost of the exhibitors.

Special mention should be made of the exhibit prepared by the Department of Agriculture.

The resolution authorised the Commissioner of Agriculture to "collect and prepare suitable specimens of the agricultural products of the several States and territories of the Union." Out of the appropriation granted by Congress towards the general expenses of the American sections of the exhibition the State Department decided that a sum of $38,000 should be assigned to the Agricultural exhibit. As will be seen from the detailed list of the expenditures, the cost of this exhibit was well within the allowance.

The Department of Agriculture appointed a representative in charge to prepare the exhibit, and a board was formed to consider and decide all questions relating to it. The work of collecting and preparing material was sub-divided into twelve branches—grains, forestry, meat products, etc.—and special agents were appointed, one or more to each branch, who travelled about the country collecting material and furnishing information to intending exhibitors. The exhibit was a "collective" one, but the name and locality of the exhi-

bitor was plainly affixed to every article shown, and appeared as well in the official catalogue. All exhibits were transported to Paris, cared for, and returned free of charge.

The total number of exhibitors in the United States sections of the exhibition, arranged in groups, is as follows:—

Group	I. (Works of art)	253
,,	II. (Education)	544
,,	III. (Furniture)	90
,,	IV. (Textiles)	60
,,	V. (Mining industries)	234
,,	VI. (Mechanical industries)	262
,,	VII. (Food products)	15
,,	VIII. (Agriculture)	44
,,	IX. (Horticulture)	5
Social Economy Section		31
Total		1,676

The total number of awards granted to United States exhibitors amounted to 1,044; of these 55 were grand prizes, 214 gold medals, 300 silver medals, 246 bronze medals, and 229 honourable mentions. The grand total of awards granted to competitors of all nations was 32,449 out of a number of exhibitors amounting to something over 60,000. From these figures it would appear that the percentage of awards gained by United States exhibitors was above the average as compared with those gained by the manufacturers of other nations.

The expenditures of the Commission have been classified as follows:—

Services of Commissioner-General	$10,000.00
,, Assistant-Commissioner-General	5,000.00
Nine scientific experts	13,500.00
Secretary and clerks to experts	11,016.93
Engineers, superintendents of sections, and skilled labour	17,597.90
Jurors	7,200.00
Watchmen, etc.	7,008.44
Clerk hire in New York, Paris, etc.	18,295,31
Expenses of New York and Hartford offices	2,475.72
,, Paris office	7,633.95
Postage	1,925.24
Stationery and printing	4,806,05
Advertising	1,349.95
Outward freight expenses	32,146.51
Inward ,, ,,	16,005.44
U.S. Government exhibits	5,413.69
Fine Arts section	3,420.31
Educational ,,	2,665.44
Industrial ,,	16,923.89
Machinery ,,	9,526.91
Agricultural ,,	35,969.69
Preparation of report	12,646.10
Miscellaneous	7,472.53
Total	$250,000.00

Brussels, 1897.

The Department of State asked for a grant of $35,000 towards the expenses of this exhibition, but Congress only appropriated $5.000.

Two Commissioners were appointed by the Secretary of State.

The small appropriation confined the Commissioners to the work of propaganda. This was carried out very systematically. Special Consular reports were obtained showing on what lines United States trade with Belgium was decreasing and increasing, and what manufactures and products would find favourable openings. On the basis of these reports circulars were prepared and sent out to all firms which might be expected to reap the most advantage commercially from the exhibition. Circulars were also sent to the Boards of Trade and other commercial organisations in the great manufacturing centres. The Press generally and trade journals in particular were supplied with circulars and special news items.

There were about 200 United States exhibitors, who obtained the following awards:—6 grand prizes, 6 diplomas of honour, 25 gold medals, 33 silver medals, 31 bronze medals, and 21 honourable mentions.

The whole appropriation was expended, and the Commissioners paid out of their own pockets something under $100 which were spent in excess of the sum granted by Congress.

Paris, 1900.

Appropriations.

The first appropriation made by Congress amounted to $650,000. This sum had been settled upon after a preliminary visit to Paris of a Special Commissioner, who, immediately on Congress sanctioning the acceptance of the invitation to participate in the exhibition, had been sent thither to ascertain the amount of space which would be granted to the United States, and to form an estimate of the cost of representation. It was found, however, that the amount of space which this Commissioner had obtained from the exhibition authorities was entirely inadequate. It was also learnt that it was the intention of most Governments to erect special national buildings, a fact which seems not to have been ascertained at first. Much negotiation with the authorities then ensued, with the result that the amount of space granted to the United States was increased by about 70 per cent. A revised estimate was then drawn up by the Commission which had been appointed by the first Appropriation Act, and submitted to Congress. The Commission had already had time to estimate what sum should be apportioned to each group of industries. Each director at the head of a group of exhibits submitted an estimate of what should be expended on his department. These estimates were compared and revised by the Director-in-Chief of Exhibits and the Director of Affairs. Finally the estimates were approved by the Commissioner-General. The application to Congress was based on these estimates and on the necessity of providing additional grants to meet the expenses entailed by the increase of space awarded and the erection of a National Pavilion. Eventully Congress granted an appropriation amounting to the large sum of $1,397,500 (£279,500).

Out of this sum certain amounts were to be devoted to specific purposes. Besides the remuneration of the members of the Commission and of the jurors, it was stipulated in the Act of Appropriation that a sum not exceeding $150,000 should be devoted to the agricultural exhibit, $120,000 to clerk hire, $296,500 for buildings and constructions, and $15,000 for a negro exhibit. For the rest, the general control of the expenditure of the balance was in the hands of the Commissioner General, but it was the Disbursing Officer who was directly responsible for payments made. His returns of expenditure, made quarterly, were submitted to the State and Treasury Departments for approval.

United States Commission.

The Commission consisted of a Commissioner General, an Assistant Commissioner General, a Secretary who acted as Disbursing Officer, and nineteen Commissioners. All of these were appointed by the President. The terms of service of the Commissioner General, Assistant Commissioner General and Secretary were not to exceed three years, and their salaries were fixed at $8,000, $6,000 and $4,500 respectively. The other Commissioners were appointed for one year, 1900, and received $3,000 each.

There were further appointed, by the Commissioner General, ten Directors, among whom was distributed the supervision of the eighteen groups in which the exhibits were officially divided. Eight Assistant Directors were also appointed. In addition, the staff comprised Directors of Affairs, of Customs, and of Decorations.

Separate State Commissions.

Invitations sent to the Governors of the various States and Territories met with a heartier response than was the case with the Paris Exhibition of 1889. Commissions were appointed by thirteen States, five of which made appropriations ranging from $250 to $130,000. Under the exhibition regulations collective State exhibits were impossible. The State Commissions therefore devoted most of their efforts to generally assisting the United States Commission and co-operating with the latter's work of collecting exhibits.

Work of the Department of Exploitation.

The duty of distributing information to intending exhibitors, collecting exhibits, etc., was entrusted to a "Director of Exploitation." Offices were opened in New York and Chicago. With these offices as headquarters, a press bureau was established, through which the daily papers, and in particular the various

trade journals, were supplied with articles designed to stimulate the zeal of manufacturers and of the people in general. A circular of 110 pages, containing general information for intending exhibitors, and specifying the commercial advantages to be gained by participation, was published and distributed broadcast throughout the whole country. Special letters were written to individual firms, urging them, for patriotic and commercial reasons, to exhibit.

Much was also done by the Directors at the heads of the various groups, who travelled about energetically using their personal influence to induce producers to participate, and the Commissioner General himself, who visited nearly all the principal centres of industry where he addressed meetings and generally stimulated interest in the exhibition.

The work of obtaining and selecting suitable exhibits was fraught with many difficulties. The object held consistently in view was to make the United States sections as complete and representative as possible. But whereas in certain classes there was no lack of exhibitors, the excessive number of applicants in some cases making the work of selection extremely difficult, in other classes it was often impossible to procure exhibits. This was the case, of course, in classes where American manufacturers did not foresee, and could not from the nature of their products expect to reap, any commercial advantage, but where it was imperative for national reasons that the United States should be properly represented. The difficulty was finally overcome by deciding on governmental collective exhibits, the expenses in such cases being considerably lessened to the exhibitors, who could therefore be often induced to participate for patriotic motives. The selection of exhibits was in the hands of the directors and assistant directors of the various groups, who were aided by experts and advisory boards.

Transportation and Installation, etc.

Private exhibitors—*i.e.*, those who were not taking part in a governmental collective exhibit—had to make their own arrangements as regards transportation, unpacking and repacking, installation and insurance, and to bear all expenses in conection with the same, the Commission giving them no assistance beyond collecting and publishing reliable information as to ocean freights, railroad rates, etc.

For the transportation of the exhibits prepared by Government Departments, such as those of the Departments of Agriculture and the Navy, for the conveyance of much of the material used for construction and decoration, as well as for the transporation of the collective exhibits, a large unarmoured United States cruiser was employed, which made two trips to France conveying goods to the exhibition, and one from Havre to New York and Baltimore at the close of the exhibition.

The installation of the collective exhibits, and all the work connected with their setting up, decoration, upkeep, unpacking, etc., was undertaken by the Commission. The expenses were borne by the exhibitors, each contributing his share of the total amount expended, calculated on the amount of space taken up by his exhibit. The exhibitors also contributed to the blanket insurance policy which was taken out by the Commission on all material belonging to the Government and on the collective exhibits in charge of the Commission.

All articles contributed to the collective exhibits were, where feasible, displayed under the name of the manufacturer or producer.

The sale of goods during the exhibition was governed by the regulations made by the French authorities, and the Commission therefore made no arrangements with the owners of goods exhibited on that score.

The work of decorating the various sections, constructing façades, etc., was in the hands of the director of decorations. He was allotted $51,500, out of which sum specific amounts, ranging from $2,500 to $10,000, were to be devoted to certain groups. In each case, the director of each group was to determine the exact amount which should be spent out of the sum allotted.

Buildings.

The United States National Pavilion was erected at the cost of $116,239. The furnishing and decoration thereof was assigned to an art committee appointed by the Commissioner General. This committee collected subscriptions covering the cost of decoration and furnishing all but $1,895, which sum was defrayed by the Commission.

Three other buildings, the Agricultural, Merchant Marine, and Forestry annexes, as well as two kiosks, were built at the cost of the Commission, which also supervised the construction of six buildings at the cost of the exhibitors. The cost of the buildings erected by the Commission, excluding those for which the exhibitors paid and including the assessment paid by the Commission on the Automobile and Transportation buildings erected by the exhibition authorities, came to $173,510.

The report of the Commission does not state what sum, if any, was obtained by the sale of the United States Pavilion after the close of the exhibition.

Awards.

United States exhibitors gained the following awards, according to the various groups:—

	Grand Prizes.	Gold Medals.	Silver Medals.	Bronze Medals.	Honourable Mentions.
I. Education	41	65	41	16	6
II. Fine Arts	6	15	35	56	45
III. Literature, Science	18	43	63	45	14
IV. Machinery	10	24	45	49	29
V. Electricity	6	15	16	40	20
VI. Engineering and Transportation	17	34	44	15	11
VII. Agriculture	—	—	—	—	—
VIII. Horticulture	7	27	56	39	14
IX. Forestry and Fisheries	5	33	34	8	12
X. Foodstuffs	—	—	—	—	—
XI. Mining and Metallurgy	12	17	28	14	8
XII. Decoration and Furniture	4	26	35	32	17
XIII. Textiles	14	27	18	20	14
XIV. Chemical Industries	5	24	19	14	25
XV. Varied Industries	9	26	51	24	26
XVI. Social Economy	30	95	132	41	45
XVII. Colonization	—	—	—	—	—
XVIII. Naval and Military	—	—	—	—	—

The above figures are compiled from the official Report presented to Congress by the Commission. This Report had, according to the Act of Congress, to be presented within four months after the close of the exhibition; it is, in consequence, not a very finished document, though of great size. No attempt is made therein to compare the number of awards granted to the United States with those accorded to other countries. The French official report of the Exhibition contains, however, some interesting comparisons, though the figures do not quite tally with those of the United States official Report. According to the former, the number of United States exhibitors totalled 7,610 (in the American Report the grand total is put at 7,091), a number far in excess of the participants of other nations, being more than double the number of exhibitors from Great Britain, and about three times that of Germany. As regard awards, the United

States received 2,379, Italy 2,017, Germany 1,983, Great Britain 1,865, Russia 1,754, and Japan 1,307. Per thousand exhibitors, the United States received 313 awards, Germany 736, Italy 644, Great Britain 584, and Russia 552.

Finances.

The statement of expenditure contained in the Report presented to Congress was drawn up before the work of the Commission was entirely over, and only includes the expenditure up to February 15th, 1901. The chief items are:—

Clerks' salaries	$111,674
Buildings	250,000
Experts' salaries	245,435
Façades constructed	45,340
General employees' salaries	53,534
Insurance	10,788
Officers' salaries	44,862
Commissioners' salaries	50,581
Travelling expenses	106,803
Rent	43,229
Jurors	55,012

On the date of the Secretary's report there was a balance in hand of $71,348, including balances of the appropriations for commissioners and jurors which had not been fully expended. Before the work of the Commission was over special applications had to be made to Congress for permission to devote the above-named balances to the general expenses of winding up affairs, and the whole of the appropriation was thus spent.

LIÈGE, 1905.

For this exhibition the sum of $5,000 was appropriated, and three Commissioners appointed.

The Commissioners had great difficulty in inducing American firms to participate in this exhibition. One member of the Commission happened to be in St. Louis at the time of his appointment, and he endeavoured to persuade manufacturers taking part in the Louisiana Purchase Exposition to send exhibits to Liège, but he met with little success. Those firms who had been unsuccessful in securing orders after exhibiting at St. Louis were naturally unwilling to incur the expense of another such enterprise, while the successful exhibitors declared that their time would be completely taken up in meeting the new orders they had received and keeping up with their regular trade.

The expenses of the Commission exceeded the appropriation by $91.49, and the deficit was met by the Commissioners personally. The sanction of the Department of State was always obtained before the larger expenditures were incurred, and the actual disbursements were made by the Bureau of Accounts of the State Department.

By purchasing space from the exhibition authorities at wholesale rates, and selling to the individual exhibitors at retail rates, the Commissioners were able to increase their financial resources, and were able to produce much better results in the way of decorations, etc., than might have been expected from the smallness of the appropriation.

United States exhibitors received the following awards:—21 grand prizes, 18 diplomas of honour, 56 gold medals, 49 silver medals, 28 bronze medals, and 6 honourable mentions. The United States machinery exhibit was particularly good, American exhibitors receiving in one class, that of machinery tools, approximately half of the awards granted. Of the 28 nations represented in the exhibition, the United States were ninth in the number of exhibitors and seventh in the number of awards.

APPENDIX C.

Reports by H.M. Representatives Abroad.

VIII.—JAPAN.

(N.B.—Where Regulations and other details are enumerated, they refer, unless otherwise stated, to those adopted at the St. Louis International Exhibition of 1903, the latest for which full information is available.)

1. Japan has readily accepted invitations to participate in recent international exhibitions held in various countries. In doing so her Government have uniformly been actuated by the desire to benefit Japan's commerce and industries. The actions and instructions of the controlling bodies in each case show that immediate advantage in the shape of pecuniary profit from sales is not specially desired; that the principal object is to give foreign visitors at such exhibitions complete information as to Japan's most important products and her advance in various industries; and that control is exercised to exclude inferior and unimportant articles, and to show only representative exhibits, giving at the same time full information thereon to persons interested. The system of selection is devised to exclude all inferior exhibits, and both Government and private exhibits are combined to make a representative collection from the whole Empire.

2. The Japanese Government has taken part in the following Exhibitions (International) since 1887:—

(a.) Barcelona - -	1888	Government and individual
(b.) Paris - - -	1889	„
(c.) Hamburg - -	1889	Government
(d.) St. Petersburg Prison Exhibition -	1890	„
(e.) Chicago - - -	1895	Government and individual
(f.) Paris - - -	1900	„
(g.) St. Louis - -	1903	„

3. The amounts granted by the Japanese Government for the purpose of participation in international exhibitions is nearly all spent either in the preparation of official exhibits or in official and controlling expenses both in Japan and at the various exhibitions. The only sums which can properly be said to constitute subsidies to individual exhibits are the local transportation, packing, ornamentation, and other exhibition expenses, and the examination and administrative expenses incurred in Japan.

The following are the amounts expended by the Government at exhibitions since 1887:—

	Amount expended.
Barcelona - - - -	£3,550
Paris - - - - -	20,100
Hamburg - - - -	770
St. Petersburg - - -	830
Chicago - - - -	81,470
Paris - - - - -	134,705
St. Louis - - - -	80,466

In the case of the St. Louis Exhibition the total amount estimated and voted had been £81,667. Of the total sum expended only a very small amount could be regarded as devoted purely to the expenses of the "official exhibit"; thus only £3,178 was set aside for the preparation of the articles constituting this exhibit. There were, however, numerous heads of expenditure which covered both official and individual exhibits, of which the principal were:—

Construction of grounds and general building expenses - - - -	£6,864
Subsidy for tea house and selling pavilion - - - - - -	3,062
Furniture and ornamentation - -	11,968
Transport and correspondence (including £2,650 official exhibits) - -	3,820

In the Paris Exhibition of 1900 the cost of the articles of the official exhibit was set down as £6,521.

4. Except in the case of St. Petersburg Exhibition (when the Japanese section was under the control of the Legation officials) the exhibits from Japan have been managed by an Official Committee. These committees varied in number with each exhibition, and had even different numbers during the course of the same exhibition according as the number of officials, scientific experts, and secretaries was increased or decreased. The following list shows the approximate number of each committee at the various exhibitions:—

Breslau - - - - -	5
Hamburg - - - - -	3
Chicago - - - - -	110
St. Louis - - - - -	52
Paris - - - - - -	27
St. Petersburg (Legation).	
Paris - - - - - -	30

In the case of the St. Louis Exhibition the minimum number of the committee was 29 and the maximum 52; at the period of maximum it was composed of "Director," "Vice-Director," "Chief of Executive," eight "Executive Officials," 28 Secretaries, and 13 other employees.

5. The Exhibition Committee for the control of the Japanese section at the St. Louis Exhibition was constituted by Imperial Ordinance as a "Temporary Exhibition Committee," and exercised continuous control over matters pertaining to the Japanese section and to its preparation. The committee was composed as follows:—

Director.
Vice-Director.
Chief of Executive.
Executive Officials.
Examining and Consulting Officials.
Secretaries.

The Director, Vice-Director, Chief Executive Officer, Executive Officials, Examining and Consulting Officials were nominated by the Minister of Agriculture and Commerce and approved by the Cabinet; the Secretaries were appointed by the Director.

The whole committee was under the general control of the Minister of Agriculture and Commerce, who became its Director. The Executive Officials were mainly drawn from Government Departments, while the Examining and Consulting Officials included scientists and experts. (N.B.—The latter were attached to the committee, and were not an integral part thereof. Their work was liable to come to an end at various stages of the preparations, and they are not included in the numbers of the committee given above. The total number of Examining Officials was 52, of Consulting Officials 40.)

Sub-committees were formed from amongst the scientific and expert advisers to deal with the examination of exhibits and the various technical points raised.

The principal duties of the committee included—

1. The enaction of rules.
2. The issuing of notifications and instructions.
3. Correspondence with the Government authorities of the exhibiting country, with the exhibition authorities and other officials, and with local Japanese authorities in the various Prefectures.
4. The allocation of space.
5. The regulation of matters relating to exhibition stalls and decoration.
6. The construction of buildings and general arrangement of the Japanese section.
7. The opening and closing of the various sections of the Japanese exhibit.
8. Printing and publishing catalogues, illustrations, etc.
9. The compilation of a report.
10. The disposal of Government exhibits.

6. In providing funds for Japan's representation at the St. Louis Exhibition it does not appear to have been the intention of the Government to assist any particular industry or group of industries by grants in the nature of subsidies. The greater part of the money voted went in exhibition and various official expenses. The following list of items shows how the total amount was apportioned:—

Subsidy for exhibition group	£12,556
Committee expenses	11,109
Expenses of building and laying out grounds	6,864
Tea house and selling pavilion	3,062
Furniture and decoration	12,442
Transport and correspondence	3,820
Official exhibits	3,178
Entertaining	3,813
Salaries and wages	4,699
Travelling expenses	11,175
Miscellaneous (printing, stationery, repairs, etc.)	7,748
	£80,466

In many of the above items it was not possible to allocate a fixed sum for the service contemplated. Thus in the case of freight on official exhibits everything incurred had to be paid; again, in the matter of laying out grounds, building expenses, furniture and decoration, the amounts paid were the actual expenses incurred. It would appear that at the outset estimates had been made of the amount likely to be wanted, depending on the area allotted to Japan, the number of exhibits it would accommodate and the style of building and decoration considered suitable, and an amount was voted sufficient to cover everything.

With reference to the official exhibit it may be mentioned that the sum of £3,178 mentioned above as being set aside under this head did not represent the full value of that exhibit. In addition there were small sums contributed by various Government Bureaux, while a considerable number of exhibits were already in the hands of Government authorities, so that their acquisition involved no outlay; the total value of the Government exhibit was put down at about £6,250.

In dividing up the money at the disposal of the committee for the purchase or procural otherwise of the articles for the Government exhibits, estimates were obtained from the following Departments of the sums they considered necessary for their respective sections:

Department of Agriculture and Commerce (including the Agricultural Bureau, the Mining Bureau, the Forestry Bureau, the Patent Office, the Bureau for Marine Products, and the Geological Investigation Office).

Department of Education.

Department of Communications.

Department of the Interior.

Most of the estimates were reduced by the committee, which in deciding the amounts appear to have been influenced partly by the relative importance of the various sections to Japan, partly by the principle of selecting exhibits with a view to showing Japan's progress in different directions, and partly by the desire to choose new and hitherto unknown exhibits rather than articles with which people were already acquainted. The following list of the value of the exhibits from the various Government Departments will give an idea of the relative importance attached to the different sections:—

Department of Agriculture and Commerce		£3,923
Agricultural	£435	
Forestry	408	
Mining	285	
Geological Investigation	2,031	
Ironworks	42	
Patent Office	107	
Marine Products	513	
Hokkaido (Yezo)	102	
Department of Communications		424
Department of Finance (Tobacco Monopoly, note-making and printing)		17
Department of the Interior (hospitals, etc.)		414
Department of Education		1,470

In the case of individual exhibitors these benefited, of course, by the amounts expended in the preparation of the exhibition buildings, stalls, decorations, etc., but the only amount which was specially devoted to them was that coming under the heading "Subsidy for Exhibition Group." Even here, however, there were no direct subsidies paid to individual exhibitors, but only certain of their expenses paid.

It may be mentioned that exhibitors were not necessarily joined to any particular group. Firms, etc., large and important enough to dispense with assistance or external management of any kind, could either singly or in combination with other firms undertake all matters in connection with their exhibits themselves. Other exhibitors would be members of one or other of the twelve exhibition groups formed throughout the country. These groups in turn were for purposes of management, etc., formed into an association of groups, and it was this latter association which handled the subsidy of £12,556 mentioned above.

In addition to the above sum the association received a further £6,737, derived from entrance fees, commission on goods sold during the exhibition, etc. The total association funds were therefore £19,295, and the following are some of the principal items of expenditure thereof:—

Salaries, wages and bonuses	£4,474
Travelling	2,261
Hotel expenses, etc.	4,967
Rent	470
Examination expenses	204
Postage and telegrams	194
Notifications, advertisements, printing	480
Shipping and transport charges	510
Warehouse charges	408
Return freight charges	490
Packing charges of goods sold	122

The above figures appear to have been the original estimates, and together with various miscellaneous items total only £16,946, against the total of £19,295 ultimately disbursed. The balance of £2,547 was distributed in supplementary amounts (details not obtainable) under the different headings given above.

It should be mentioned that many of the local prefectures gave assistance towards the preparation of exhibits out of local funds. The total amount so given was £13,739. It is difficult to give the exact distribution of this sum, owing to the fact that the reurns are not uniform, some amounts including several items, while subsidies to the local "Exhibition Group" in some cases doubtless contained sums for freight, etc., elsewhere separately enumerated. The following figures, however, show approximately how the whole amount was appropriated:—

Subsidy to "Groups," and for other purposes	£7,100
Transport charges	2,145
Insurance	1,200
Packing charges	1,391
Travelling expenses	810
Miscellaneous	1,093

In some of the prefectures small sums were advanced to help local industries, such as agricultural and marine products, "soy," "Kaiki," etc.

The twelve groups themselves had funds at their disposal. These were the subsidies received from the local authorities, and also a small amount from the Association of Groups, together with sums received from town and district authorities, fees, etc., making a total of £12,384. The accounts of the groups not being uniform, the following distribution is approximate only:—

Packing	£1,133
Freight	2,395
Insurance	1,324
Travelling	4,601
Other	2,931

7. The executive staff dealing with the organisation and preparation of exhibits was, as already indicated, a part of or attached to the Exhibition Committee. Sub-committees were formed as necessary to deal with the exhibits. It was in these matters that the examiners and councillors already mentioned were mainly engaged. Amongst the examiners were ten Fine Art School Professors, two Technical School Professors, two experts from the Department of Agriculture and Commerce, together with experts from the Education Department, Patent Bureau, Engineering College, etc. The councillors included ten directors of various bureaux of the Department of Agriculture and Commerce, officials from the Foreign Office, Departments of Education, Finance, and the Imperial Household, several Japanese Consuls in the United States, experts, etc. In addition to the members (full and attached) of the Committee, there were engaged at one time or another sixty-four other officials, as builders, landscape gardeners, auditors, transport, and packing officers, etc.

8. The cost of the pavilion, as a whole, is gathered from the figures already given above. Including the building expenses generally and the laying out of the grounds, the tea house and selling pavilion, together with furniture and decoration, the total cost amounted to £22,368. At the conclusion of the exhibition a great part of the buildings, etc., were disposed of otherwise than by sale, much being presented away in different quarters. The portions sold realised about £105 only.

9. In the matter of selecting the articles to constitute the official exhibit, the Exhibition Committee included among its members representatives from most of the Government Departments concerned, and it was possible, by consultation, to arrive at an agreement as to the exhibits to be chosen. There were items difficult of or unsuitable for collection by individual exhibitors, and noteworthy articles already in existence which found a ready place in the list of the official exhibit. Bearing in mind the principle of selecting only articles of the highest quality especially pointing to Japan's progress, resources, and future possibilities, the funds available were allotted to the Departments considered to require them the most, and the primary selection of the articles to be sent was left to the Department concerned. Section 5 has already given the names of the various Departments and bureaux represented. The official exhibits were collected through the Departments by some 51 Government bureaux (central and local), 22 universities and schools, and other bodies.

In the case of individual exhibitors, information was circulated by means of notifications and instructions in official publications, and by communication with local authorities and Chambers of Commerce.

Regulations were issued providing, in the case of private or individual exhibits,

1. That ordinary goods for exhibition must be either articles of commerce or capable of becoming such in future.

2. That Fine Art objects for exhibition must pass the test of expert examination.

3. That machinery for exhibition must be either of superior Japanese design or an improvement upon foreign manufacture.

4. That articles for exhibition illustrating science, economics, sanitation, transport, construction, music, and printing must be such as to show the history of Japan and her progress in civilisation.

5. That where certain classes of commodities were concerned, only articles of importance should be exhibited (*e.g.*, in the case of agricultural exhibits only rice, tea, lily bulbs, pot plants, camphor, and other leading products were allowed; while similarly in the case of marine products these were limited to nets, salted, tinned and dried fish, seaweeds, corals, etc.).

6. That silk, educational, and mining exhibits should be shown only in accordance with the regulations of the Committee.

7. That certain classes of goods should not be allowed to be exhibited. These included—

(a) Articles manufactured, collected, or produced prior to 1895.
(b) Goods previously exhibited at International Exhibitions.
(c) Patent medicines.
(d) Articles injurious to public morals or health. perishable goods, and those liable to putrify or cause damage or inconvenience.

8. That local authorities should have power to limit the exhibits from their districts when necessary.

9. That intending exhibitors should make application according to a certain form, addressed to the local authorities (in the case of Fine Art goods to the office of the Exhibition Committee), and that the application should be accompanied by explanatory details, including

(a) Name and residence of intending exhibitor.
(b) Name of the goods and the place of production or manufacture.
(c) Annual quantity of goods produced or manufactured.
(d) Quantity of the goods exported annually and the countries of destination.
(e) Details of the factory or place of production, number of workmen, etc.
(f) Methods of production or manufacture, quality, method of employment, etc.
(g) List of awards (if any) given for similar articles at any exhibition either at home or abroad.
(h) Any other particulars of importance.

The application form had to contain, in addition, details as to the size, shape, appearance, number, weight, and price of the article or articles proposed to be exhibited.

10. That in the case of exhibits involving special construction work the necessary plans and explanations therefor should accompany the application.

11. That no responsibility for loss or damage should attach to the Exhibition Committee or to other officials.

12. That the Exhibition Committee would pay for freight, insurance, exhibition, and decoration expenses of fine art exhibits, but that exhibitors desiring to incur on their own behalf special exhibition and decoration expenses could do so on application to the Exhibition Committee.

13. That exhibitors unable personally to superintend various details as to transportation, installation, maintenance, sale and return of goods exhibited might appoint an agent to undertake such work

14. That for reasons of economy and convenience exhibitors throughout the country might be united in a single group, and that the Exhibition Committee could grant a subsidy in aid of the management expenses of such group, but that on the requisition of the Committee all other exhibitors had to be admitted to the group.

15. That when exhibitors managed their own exhibits or appointed a manager other than that of the group this had to be reported to the Exhibition Committee.

16. That details as to exhibits or their management should be reported to the Exhibition Committee.

(N.B.—Fine art exhibits were in some matters treated a little differently to ordinary exhibits. In addition to points already noted they had to be sent direct for examination by the experts of the Exhibition Committee in Tokio instead of through the local authorities, where the exhibitor was not the actual maker the name of the latter had also to be given, and the price both of production and of selling had to be mentioned.)

In addition to the rules laid down for the regulation of individual exhibits, advice on various points was

tendered to exhibitors in the shape of notices. These included suggestions:

1. Not necessarily to seek immediate profit by way of sales but to compete for awards, and to select exhibits with a view to extending business and markets.

2. To select exhibits suitable to foreign taste, and to bear in mind such factors as atmospheric conditions, seasons, foreign customs and way of living, and the general conditions of the territory to which the exhibits were to be sent.

3. To select fine art exhibits with regard to originality of design, excellence of manufacture, and general artistic qualities, and also with a view to conveying ideas of Japanese taste, scenery, etc., and to arouse interest by careful arrangement and a large variety of exhibits.

4. To refrain from exhibiting goods produced merely in small quantities or which were interesting as curiosities only.

5. To avoid exhibiting, as far as possible, goods similar to those exhibited by many others, as this might lead to selection of those of the best quality only.

6. To send spare samples of goods for examination to avoid delay in case of loss or damage.

7. To prepare such exhibits as fireworks, matches, etc., in a manner different to and more precautionary than other exhibits.

8. To write name and price cards in English, and also to prepare explanatory descriptions in English, giving various information about the goods shown; further, whenever considered advisable, to prepare photographs illustrating goods and processes.

9. To fix the selling price of exhibits at the cost price plus import duty, freight, insurance, packing, etc.

10. As will have been seen from the rules above, the Exhibition Committee had extensive powers in the matter of selection of exhibits. It was not, however, any part of their scheme to organise a "collective exhibit" except in so far as the official exhibit could be so described. The initial application of intending exhibitors went to their respective local authorities, who had certain powers of rejecting goods obviously unfit, excessive in quantity, or which did not comply with regulations. So far as exhibits which came before the committee were concerned, it would seem that had there been sufficient space for all the only objection to every exhibitor being represented would have been failure to comply with the minimum standards and rules laid down. Where the number of intending exhibitors exceeded that capable of accommodation the committee had the power of selection according to quality; apart from this, however, it would appear that all exhibits were passed which satisfied the examiners and complied with the rules.

11. Although not a collective exhibit, considerable stress was at all times laid upon clear and proper marking of goods exhibited so as to give full information to visitors. The actual name of the exhibitor does not seem to have been necessary, though as other details of description, method of use, price, etc., were a matter of rule, it is probable that the exhibitor's name was expected also. The fact that in the application for fine art exhibits it was necessary to mention both the name of the exhibitor and of the maker would suggest that in the case of other exhibits the name of the producer, when not the exhibitor, might be omitted.

12. (a) Packing.

So far as the Exhibition Committee were concerned, packing was the work of the exhibitors themselves. The latter might, of course, superintend the task themselves or might get assistance, pecuniary or other, from the group or association of groups to which they belonged.

There were, however, various instructions issued for the guidance of those sending goods. Of these the principal were:—

1. Goods should as a rule be packed in an outer case, generally of wood, but sometimes of canvas.

2. In the case of boxes the thickness of wood should not exceed 1 inch; where canvas covers were used the thickness should be four-fifths of an inch maximum.

3. Boxes should be of cedar or fir, well dried, and left unplaned; two cross pieces on each end should be used, and metal bands around the boxes should join half way along the upper side. Old boxes should not be used.

4. Although good substantial boxes were necessary to prevent breakages and leakage, excessively heavy cases were to be avoided so as to prevent undue freights, etc. The ordinary suitable size of a packed box was set down at one-fifth of a ton; beer and "shoyu," however, should be packed in cases of one or two dozen.

5. For inner packing offensive cotton waste, oil paper, old newspapers, and wet straw were not to be used; good straw was permissible, but cotton and soft paper were recommended.

6. Art metal goods and cloisonné were allowed inner cases, but these had to be marked similarly to the outer cases.

7. Glass bottles, with or without liquids, had to be separately packed in straw.

8. Embroideries and paintings had to be packed in watertight tin cases soldered down and packed in outer cases.

9. Two boards, with the shipper's name, nature of the contents, and destination (the exhibition) were to be fastened to the ends of the case, inside the box a statement of the contents and their value was to be placed.

10. A list of the contents of each box was to be made in quintuplicate, one copy being fastened on the box and the other four being sent to the Transportation Company.

(b) Transport and insurance.

In principle these charges also came on exhibitors themselves. As to transport, the Exhibition Committee undertook those at the place of exhibition—*i.e.*, those which it was not possible to settle before the goods left Japan. As has been seen in the local and other accounts given, exhibitors benefited to a small extent by the subsidies given to exhibition groups and by the sums contributed by the local authorities.

The Government, however, made arrangements to secure reduced freight rates to St. Louis by the following lines running to United States ports—the Nippon Yusen Kaisha, the Toyo Kisen Kaisha, the Pacific Mail Steamship Company, and the Oriental and Occidental Steamship Company. These reduced rates were at first 20 per cent., but a further reduction was afterwards obtained, so that the final freights were:—

Per 40 cubic feet, £1 6s. 8d., reduced from £2 1s. 8d., or 36 per cent.

Per 1 English lb., 1s. 2d., reduced from 3s. 4d., or 33·3 per cent.

These reductions were applicable to exhibits, timber for exhibition buildings, boxes, show cases, ornamentation work, etc., and were continued in the case of return freights.

It may be here mentioned that the Government also made arrangements for reduced fares to be granted by the same companies, and, in addition, the Canadian Pacific Railway Company and the Boston Steamship Company.

The reductions were as follows:—

By the Nippon Yusen Kaisha and the Boston Steamship Company—

1st class—£32; reduced from £40.

3rd class—£21; reduced from £26 (granted only by special arrangement). These rates were granted to members of the Exhibition Committee, exhibitors, and exhibitors' representatives.

By the Toyo Kisen Kaisha, the Pacific Mail Steamship Company, and the Oriental and Occidental Steamship Company—

1st class return (available nearly 12 months)—£62 16s., reduced from £94 (12 months return) and £84 (four months return).

3rd class return—£26. These rates were granted to members of the Exhibition Committee, exhibitors, and visitors to the exhibition.

By the Canadian Pacific Railway Company—

1st class return—£62, reduced from £84 return. This rate was granted to members of the Exhibition Committee and exhibitors.

Applicants for the above reduced rate tickets had to produce certificates showing the capacity in which they were proceeding to St. Louis.

(c) Installation and maintenance in repair.

In the case of official exhibits these were attended to by the Exhibition Committee. Where independent individual exhibitors were concerned they themselves were responsible for the various steps necessary. They or their representatives had to attend to such matters, complying with any restrictions or obligations placed on them by the committee or the exhibition authorities. In the case of exhibitors belonging to exhibition groups the association or its representatives undertook such work. They superintended the transport of the exhibits, unpacking, installation, general management, explanatory catalogues, sales, return of goods, etc. There was nothing, however, in cases where special or expert knowledge was necessary to prevent the exhibitor or a representative from making arrangements to co-operate and assist the agents of the association in any matter.

(d) The representation of individual firms whose goods were included in the official exhibit.

The official exhibit was entirely controlled by the Exhibition Committee, and there was no representation of the original owners of the goods. In the case of other exhibits regulations similar to those operative in the matter of installation applied.

(e) Sale of goods.

In the ordinary sections of the exhibition, the goods at the different Japanese stalls were allowed to be sold only on condition that they were not delivered until the close of the exhibition; after the first five months, however, such goods were allowed to be sold during the remaining four months for immediate delivery, but the quantity of things disposed of in the latter manner was comparatively small.

In addition to the above sales there was in the Japanese park a sales building, or bazaar. In this building only exhibitors or their agents had the right of selling goods, and this right could not be transferred to others. It was, however, possible for selling exhibitors to make combinations for convenience of management, though this could only be done on obtaining the permission of the Exhibition Committee and their sanction to the rules of the combination.

A commission was charged by the committee on goods sold at the exhibition, the amount of which went to the funds of the association of groups.

Goods for sale had to bear a ticket clearly stating the price; where it was impossible to attach such a ticket to the exhibits it had to be placed in front of the stall in a conspicuous position. Prices of goods for sale and also changes in the price had to be reported to the Exhibition Committee, and weekly reports of sales and prices obtained had also to be submitted.

All the expenses of selling had to be settled by the sellers. The arrangement and fitting of the stalls for the sale of goods had to be approved by the Exhibition Committee; the latter had, indeed, general control over all matters relating to selling, and in the event of disobedience to rules or orders had power to order the stall concerned to be closed, and that without any responsibility for loss or damage.

Even after the exhibition exhibits were not to be sold at a discount except with the sanction of the committee.

(f) Repacking and returning goods after the close of the exhibition.

Arrangements for repacking and returning were similar to those for packing and sending. In the case of official exhibits and independent individual exhibitors the Exhibition Committee and the exhibitors were respectively responsible for the matter. In the case of other exhibits the association of groups managed affairs, though the return freight, like that going, was at the expense of the exhibitor.

The same boxes, etc., were used, and arrangements had been made for the non-payment of import duty on these, so that these were considered to have been bonded during the exhibition.

In the case of articles, whether official or individual exhibits, returning to Japan, no import duty was payable in the United States. Goods shipped through to the exhibition were regarded as bonded while there until the end of the exhibition. In the case of goods being sold duty was payable by the sellers, whose price made allowance for this item; duty was also payable on official exhibits, which, by being exchanged or presented, did not return to Japan.

13. Details have already been given as to the distribution of the cost of the various operations. In the case of official exhibits everything was paid by the Committee out of Government funds; independent individual exhibitors also pair their own expenses, except in so far as they benefited by the General Committee expenditure at the Exhibition. Individual exhibitors belonging to the various groups benefited in several ways from the funds at the disposal of the association of groups, of the groups themselves, and of the local authorities. The total funds thus available was as follows:—

	£
Exhibition Committee	80,466
Association of Groups, £19,293, less £12,556 from the Exhibition Committee	6,737
Local Prefectures' contributions	15,759
Local groups, £12,384, less £6,706 received from Prefectures and £189 received from Association of Groups	5,489
	£106,431

For reasons already mentioned, it is difficult to give exact figures for the various items, but the following sums are estimates:—

	£
Packing	3,500
Freight	7,000
Insurance	3,500

14. In allocating space, the Exhibition Committee were, to a considerable extent, guided by the accommodation obtained at the Exhibition. These different buildings contained the various groups of exhibits, and it had been a matter of prior arrangement what amount of space in each building was at the disposal of Japan. The Committee were able to form an idea of the space required from their knowledge of the importance of the different industries to Japan, and from the number of exhibits they considered likely to come forward for examination. The following table gives the area of the sections at first judged necessary and that ultimately secured:—

Class of Exhibits.	Original area desired.	Area obtained ultimately	Net area for Exhibits.
	sq. ft.	sq. ft.	sq. ft.
Education and Economic	3,000	5,468	3,948
Fine Art	10,000	7,398	7,398
Industrial	80,000	75,775	55,937
Electrical		1,596	1,176
Transport	3,000	16,046	11,107
Mining	5,000	8,078	5,588
Forest, Fish, etc.	4,000	6,948	4,559
Agriculture	6,000	10,872	7,527
	111,000	152,179	95, 240

These spaces were anticipated approximately to suffice for probable exhibits. Where exhibits were in excess of the space provided, the Committee were guided in their selection by the rules and suggestions already quoted. Exhibits which violated any of the rules in section 8 were rejected; in the case of others those which adhered most to the Articles 1 to 5 of the Suggestions to Exhibitors quoted in the same section received preference in the matter of selection. It does not appear that there was much difficulty in making selections; the system of Groups and the Association of Groups imposed restraint on the outset in the matter of excessive number of exhibits, while the power of the local authorities to limit the exhibits from their districts helped to lessen the task of the Committee in making selections.

In the case of the Selling House, however, the question of selection involved difficulties of another kind.

Exhibitors whose goods had been passed for the main exhibit had the right to be represented in the Selling House, and it was not possible to apply the same principles of selection as in the case of original applicants for permission to exhibit. The area of the Selling House was 8,028 square feet, while the total applications from 57 exhibitors involved a space of 12,960 square feet. In order to settle the difficulty thus caused, it was decided to hold a consultation between the Exhibition Committee and the exhibitors; the result was that an arrangement was made by which the Selling House was divided into 27 stalls of varying sizes on which 48 exhibitors were given representation.

15. The following is a list of the number of exhibitors in each section and of the exhibits shown by them:

Section.	Number of Exhibitors.	Number of Exhibits.
Education	56	1,437
Fine Art	158	268
Industrial	1,658	90,955
Engineering	7	151
Electrical	8	75
Transportation	10	555
Agricultural	383	11,744
Horticultural	27	4,531
Forestry	58	6,814
Mining	45	2,550
Fishery	69	7,684
Anthropological	1	46
Economic	6	917
Physical Education	3	62
Total	2,449	127,525

The following is the list of awards gained by Japan in the various sections:—

Section.	Highest Award.	Gold Medal.	Silver Medal.	Copper Medal.
Education	12	10	4	2
Fine Art	6	29	41	22
Industrial	87	226	477	502
Engineering	–	1	1	1
Electrical	–	4	1	1
Transportation	2	–	1	1
Agricultural	24	48	29	20
Horticultural	1	5	8	5
Forestry	5	14	16	16
Mining	9	6	9	5
Fishery	6	15	18	11
Anthropological	–	1	–	–
Economic	4	1	–	–
Physical Education	–	1	2	–
Total (1,706)	156	559	607	584

There were besides some awards to co-operators in the Exhibition, consisting of highest awards 5, gold medals 61, silver medals, 57, and copper medals 50—a total of 155.

The following is the list of awards by countries:—

	Highest Award.	Gold Medal.	Silver Medal.	Copper Medal.	Total.
United States	1,000	2,500	2,750	5,000	9,250
France	698	800	493	264	3,225 (?)
Germany	440	620	450	240	1,750
Japan	156	556	601	589	1,702
Brazil	62	579	576	505	1,522
Argentine	29	249	335	297	910
Great Britain	154	244	168	155	679
Italy	78	247	198	155	676
Ceylon (?)	19	59	119	72	269
Siam	6	51	40	45	183 (?)
China	36	66	57	52	151 (?)
Peru	1	23	19	19	62
Sweden	15	24	16	1	58 (?)

(N.B.—The figures for Japan in the above table do not quite agree with the figures previously given, but they are both taken from official returns, and the difference is presumably due to some special re-arrangement of the comparative table of awards.)

16. So far, Japan can hardly be considered to have had as full an experience of exhibitions as several of the other leading nations. Although she has taken part in exhibitions for a good many years past, and has had several national and special exhibitions of her own, still, owing to the hitherto backward state of her industries and commerce, the number of people who might be directly affected thereby must be considerably smaller than that of several other countries. Moreover, though as detailed above, the question of participation in exhibitions was largely left to individual initiative; still, the great interest taken by the Japanese Government in commercial and industrial development makes it probable that there was more control exercised over the selection and arrangement of the exhibits than might appear. The great ramifications of the Japanese official system, the existence of the semi-official Guilds, and the close relations which are usually regarded as existing between the Government and some of the leading Japanese firms, would all point to the probability of such control. Making allowance for the above, however, there can be little doubt that Japanese manufacturers and merchants, as a whole, look with a favourable eye on such exhibitions.

In the records of exhibitions held in Japan a steady increase in the number of visitors can be noted, and this is a standing argument in favour of the view that by such means the wares of the exhibitors are brought prominently to the notice of a large section of the population. Although still backward in many branches of trade and manufacture, the Japanese are keenly awake to ways and means of commercial expansion, and they especially show their appreciation of the benefits accruing from advertisement, and an exhibition is looked upon as an excellent means of advertising, especially in the matter of new industries which it is desired to make a matter of common knowledge.

17. Reasons in favour of exhibitions have been given in the preceding paragraph. Apart from these, a point in connection with international exhibitions which may have weight with official departments is the desirability of keeping the world at large informed of Japan's general industrial and commercial progress. Credited as she is with qualities of various kinds, Japan is still regarded as backward in trade matters. She is nevertheless making considerable advances, and there is a feeling that her progress in such matters should be known by other nations, and that she should receive credit therefor. The

various instructions and advices all contain reference to the selection of objects for exhibition 'of recent date and design," "of the best manufacture," "illustrating Japan's progress," showing the feeling that a good display may redound to the benefit of Japan's industries and commerce.

It is difficult to find important arguments against exhibitions whose utility as a whole is admitted. Some criticisms in the case of special commodities based on expense and distance, and doubts whether the benefits equal the outlay seem to be the principal, but for the most part, opinions are in favour of exhibitions.

18. There has never been an international exhibition in Japan, and the views of British merchants on the subject of the possible advantage accruing therefrom to British trade are somewhat doubtful. There have been several domestic exhibitions at which there has been a foreign section, and local British firms have been represented there. There appears to be some conflict of opinion as to the utility of such representation. Firms doing a good business in patent articles or in some specialities which are widely known might feel constrained to exhibit to keep pace with competitors and yet consider that their business was not materially benefited thereby. Others, again, regard the opportunities of examination and inspection thus given to trade rivals with apprehension. Some deal in articles too expensive or too special to interest any people except Government authorities and other large concerns which are more easily approached by more direct means. On the whole, however, opinion is favourable to exhibitions. The Japanese have the faculty of interest, and even curiosity, largely developed; they travel a great deal in their own country, and the result is that an exhibition appeals intelligently to a very large section of the people who thus have the various commodities on show brought strongly to their notice. They are, moreover, a people to whom actual demonstration of the working or utility of an article specially appeals; a machine in operation showing thus its value, a model strikingly indicating its own uses, or specimens whose purpose or application is evident, excite the ready attention of a people who for many years have been accustomed to look for changes and progress everywhere. It is also true that between Japanese and foreigners the language obstacle is still a matter of great difficulty, and however good the organisation of a firm may be in meeting this trouble, anything which can be of utility in overthrowing, even temporarily, this barrier, is very welcome. For these reasons it may be considered that on the whole exhibitions, but more especially international, are regarded as useful in furthering British trade.

19. An international exhibition, the first of its kind in Japan, is proposed to be held in Tokio in the year 1912.

APPENDIX D.

RETURN Shewing Actual Expenditure from Public Funds in Respect of the Participation of this Country in International Exhibitions.

Year.	Place.	Expenditure.	Body Responsible for Expenditure.
		£	
1853	New York	2,432	Royal Commission.
1855	Paris	41,253	Science and Art Department.
1867	Paris	120,556	Royal Commission.
1873	Vienna	30,352	Royal Commission.
1875	Paris (Maritime)	1,973	Mixed Committee.
1876	Philadelphia	40,462	Science and Art Department.
1878	Paris	73,712	Royal Commission.
1879	Sydney	9,203	Royal Commission.
1880	Melbourne		
1885	Antwerp	198	Foreign Office Agent.
1885	New Orleans	200	Foreign Office Agent.
1888	Barcelona	85	Foreign Office Agent.
1887	Adelaide	3,864	Royal Commission.
1888	Melbourne	6,557	Royal Commission.
1891	Jamaica	1,000	Colonial Office Committee.
1893	Chicago	61,464	Royal Commission (Society of Arts).
1894-5	Tasmania	2,000	Royal Commission.
1894	Antwerp	388	Foreign Office Agent, with Committee of London Chamber of Commerce.
1897	Brussels	4,753	Committee of London Chamber of Commerce.
1900	Paris	97,033	Royal Commission.
1904	St. Louis	128,000*	Royal Commission.
1906	Milan	5,300*	Committee of London Chamber of Commerce.
1906-7	New Zealand	8,000*	Committee of Colonial Office and Board of Trade.
		638,785	

* Approximately.

INTERNATIONAL EXHIBITIONS COMMITTEE.

MINUTES OF EVIDENCE

TAKEN BY THE

COMMITTEE APPOINTED BY THE BOARD OF TRADE

TO MAKE ENQUIRIES WITH REFERENCE TO

The Participation of Great Britain in Great International Exhibitions,

WITH

APPENDICES AND INDEX.

Presented to both Houses of Parliament by Command of His Majesty.

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1907.

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INTERNATIONAL EXHIBITIONS COMMITTEE.

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408. 2,000—Wt. L. 9616. 10/07.—Wy. & S

INTERNATIONAL EXHIBITIONS COMMITTEE.

LIST OF WITNESSES.

In the order in which they appeared before the Committee.

Date.	Name of Witness.	Profession, Occupation or Residence.	Number of first Question.	Page.
1906. 1st Day - Nov. 9th.	Colonel Sir H. JEKYLL, R.E., K.C.M.G.	Assistant Secretary, Railway Department of the Board of Trade; Secretary of the Royal Commissions for the Melbourne Centennial Exhibition, 1888, and of the Royal Commission for the Paris Exhibition, 1900.	1	1
2nd Day - Nov. 16th.	Colonel Sir C. M. WATSON, R.E., K.C.M.G., C.B.	Secretary of the Royal Commission and Commissioner General St. Louis Exhibition, 1904.	148	6
	*Sir ISIDORE SPIELMANN - -	Honorary Secretary, British Fine Art Section, Brussels Exhibition, 1897; Director, British Fine Art Section, Paris Exhibition, 1900; Honorary Assistant Secretary, Royal Commission for St. Louis Exhibition, 1904; Art Director to the British Government Exhibit, New Zealand International Exhibition of 1906–7.	391	14
3rd Day - Nov. 30th.	Sir HENRY TRUEMAN WOOD -	Secretary of the Society of Arts - - -	548	20
	Sir Isidore Spielmann (recalled) -	- - - - - - - - -	805	30
	Sir BOVERTON REDWOOD - -	Representing the Society of Chemical Industries, President of the International Jury for Lighting Appliances and Materials, Brussels Exhibition, 1897, British Juror at the Paris Exhibition, 1900, Member of the British Commissions St. Louis Exhibition, 1904, and Milan Exhibition, 1906.	815	31
4th Day - Dec. 7th.	Mr. A. MASKELL, F.S.A. - -	Representative of the South Kensington Museum Art Library, Munich International Exhibition, 1876, and Superintendent of the Music Division of the International Inventions and Music Exhibition, 1885.	877	37
	Mr. ARTHUR SERENA - -	Honorary Executive Commissioner for the Milan Exhibition, 1906.	963	41
	Mr. IMRE KIRALFY - - -	Commissioner-General of the British Section at the Liège Exhibition, and Secretary to the Franco-British Exhibition, 1908.	1115	49
1907. 5th Day - Jan. 11th.	Sir W. H. PREECE, K.C.B., F.R.S.	Late Engineer-in-Chief to the General Post Office and Past President of the Institution of Civil Engineers and of the Institution of Electrical Engineers; Juror and Member of Executive Council, Paris Exhibition, 1889; Member of Royal Commissions, Chicago, 1893; and Paris, 1900.	1305	57
	Mr. BENNETT H. BROUGH -	Secretary of the Iron and Steel Institute; British Juror, Paris Exhibition, 1900.	1436	63

* For further evidence by Sir Isidore Spielmann, see third and twenty-third days (pages 30-31 and 285-291), also Appendices I, II. and III. (pages 312 to 316).

Date.	Name of Witness.	Profession, Occupation or Residence.	Number of First Question.	Page.
1907. 6th Day - Jan. 25th.	Mr. THOMAS COPE - - -	Member of the firm of Messrs. Henry Johnson & Sons, Exhibition and Transport Agents, London, and Member of the British Commission, Milan Exhibition, 1906.	1543	69
	Mr. WILLIAM BURTON - -	Member of the firm of Pilkington's Tile and Pottery Company, Ltd., near Manchester.	1710	76
7th Day - Feb. 1st.	Mr. W. F. REID - - -	Technical and Consulting Chemist (representing the Society of Chemical Industries); British Juror St. Louis Exhibition, 1904, and Milan Exhibition, 1906.	1872	86
	The Right Hon. Lord ALVERSTONE, G.C.M.G.	Lord Chief Justice of England, Member of the Royal Commissions for the Exhibitions at Chicago, 1893; Paris, 1900; and St. Louis, 1904.	2066	94
8th Day - Feb. 7th.	Mr. ARTHUR W. DOWN - -	Member of the firm of Messrs. Down Bros., Surgical Instrument Makers etc., London.	2181	102
	Mr. LUCIEN SERAILLER - -	Member of the Executive Staff of the British Commissions for the Exhibitions at Paris, 1900, and St. Louis, 1904.	2303	106
	The Right Hon. Lord Justice FLETCHER MOULTON, F.R.S.	Member of the Royal Commission for the Chicago Exhibition, 1903, and British Juror at the Paris Exhibition, 1900.	2432	111
9th Day - Feb. 14th.	Mr. WALTER MAPPIN - -	Director, Messrs. Mappin and Webb, Jewellers and Silversmiths, London.	2488	115
	Mr. R. J. GIBSON - - -	Director, Messrs. Mappin and Webb, Jewellers and Silversmiths, London.	2489	115
	Mr. IRA H. HILLMAN - -	Member of the firm of Messrs. Hillman, Bros., Exhibition Agents, Newbury.	2680	121
	Mr. J. H. CUNDALL - - -	Member of the Executive Staff of the British Section, Paris Exhibitions, 1878, 1889, 1900; Vienna Exhibition, 1873; Philadelphia, 1876; St. Louis, 1904; and Milan, 1906.	2877	128
10th Day - Feb. 21st.	Mr. SIDNEY SPARKES - -	Director, Messrs. Clayton and Shuttleworth, Ltd., Agricultural Engineers, Lincoln.	3032	133
11th Day - Feb. 28th.	Mr. EDMUND H. LLOYD - -	Member of the Executive Staff of the British Sections, Paris Exhibition, 1900; St. Louis Exhibition, 1904; Assistant Manager, Dublin Exhibition, 1907.	3183	139
	Mr. AUGUST BORNEMANN - -	Managing Director, Messrs. Ruston, Proctor & Co., Ltd., Engineers, Lincoln.	3419	145
	Mr. F. HOOPER - - -	Secretary of the Bradford Chamber of Commerce.	3603	151
12th Day - March 7th.	Mr. A. HEAL - - - -	Member of the firm of Messrs. Heal & Son, Furniture Manufacturers and Upholsterers, London.	3740	156
	Mr. WALTER BIRCH - -	Member of the firm of Messrs. Birch and Co., Ltd., Furniture Manufacturers and Upholsterers, London.	3898	161
13th Day - March 14th.	Mr. F. T. FORD - - -	Managing Director of Messrs. T. B. Ford, Ltd., Blotting Paper Manufacturers, Loudwater.	4089	167
	Mr. PHILIP BAKER - - -	Member of the firm of Messrs. Joseph Baker & Sons, Ltd., Manufacturers of Baking and other Machinery, London.	4253	174

Date.	Name of Witness.	Profession, Occupation, or Residence.	Number of First Question.	Page.
1907. 14th Day - March 21st.	Mr. G. Collins Levey, C.M.G. -	Representative of the Colony of Victoria Vienna Exhibition, 1873; Philadelphia Exhibition, 1876; Paris Exhibition, 1878; Organiser, Melbourne Exhibition, 1880–81; Organiser of the British Section, Adelaide Exhibition, 1887; Secretary of the Colonial Committee of the Royal Commission, Paris Exhibition, 1900.	4368	178
	Mr. W. H. Feltham	Member of the firm of Messrs. W. H. Feltham & Co., Manufacturers of Cotton Bags, London and Manchester.	4481	185
15th Day - April 11th.	Mr. David Howard - - -	Chairman of the firm of Messrs. Howards & Sons, Ltd., Manufacturing Chemists, Stratford, E.	4611	189
	Mr. F. A. Darton - - -	Member of the firm of Messrs. F. Darton & Co., Scientific Instrument Makers, London.	4741	193
16th Day - April 18th.	Sir Albert K. Rollit - -	Chairman of the International Exhibitions Committee of the London Chamber of Commerce.	4901	198
	Mr. Arthur Greenwood -	Chairman and Managing Director, Messrs. Greenwood & Batley, General Electrical and Mechanical Engineers, Leeds.	5121	209
17th Day - April 25th.	Mr. E. Powell - - -	Chairman and Managing Director, Messrs. Humber, Ltd. (representing the Society of Motor Manufacturers and Traders).	5278	213
	Mr. S. F. Edge - - -	Director, Messrs. S. F. Edge, Ltd. (representing the Society of Motor Manufacturers and Traders).	5279	213
	Mr. T. F. Woodfine - -	Secretary to the Society of Motor Manufacturers and Traders.	5280	213
	Mr. George Jennings - -	Director, Messrs. George Jennings, Ltd., Sanitary Engineers, London.	5474	221
18th Day - May 2nd.	The Right Hon. Lord Brassey, G.C.B.	Representative of the London Chamber of Commerce.	5577	223
	Mr. Charles Charleton -	Representative of the London Chamber of Commerce.	5578	223
	Mr. John T. Willams - -	Manager, Messrs. Hitchcock, Williams & Co., Drapery Warehousemen and Manufacturers, London.	5694	231
	Mr. Mark W. Zambra - -	Manager, Messrs. Negretti and Zambra, Scientific Instrument Makers, London -	5783	234
19th Day. May 9th.	Mr. John Moncrieff - -	Managing Director, Messrs. John Moncrieff, Ltd., Gauge Glass Manufacturers, Perth.	5873	238
	Mr. A. G. Maginnis - -	Managing Director of the Goldsmiths' and Silversmiths' Co., Ltd., London.	6007	243
20th Day. May 16th.	Mr. Alan S. Cole, C.B. - -	Assistant Secretary, Science and Art Department, South Kensington.	6228	249
	Mr. H. T. Milward - -	Member of the firm of Messrs. Henry Milward & Sons, Ltd., Manufacturers of Needles, Fish Hooks and Fishing Tackle, Redditch.	6385	255
21st Day. May 30th.	Mr. Henry Birchenough, C.M.G.	Member of the firm of Messrs. John Birchenough & Sons, Silk Manufacturers, London.	6537	260

Date.	Name of Witness.	Profession, Occupation or Residence.	Number of First Question.	Page.
1907. 22nd Day. June 6th.	Mr. H. J. POWELL - - -	Member of the firm of Messrs. James Powell & Sons, Glass Manufacturers, London.	6702	266
	Mr. E. J. CROSIER - - -	Member of the firm of Messrs. Crosier, Stephens & Co., Engineers and Merchants, Newcastle-on-Tyne.	6846	270
	Mr. J. C. MATHIESON - -	Director, Messrs. Clarke, Nickolls & Coombs, Ltd., Manufacturing Confectioners, etc., London.	7019	275
23rd Day - June 13th.	Mr. IVAN LEVINSTEIN - -	Managing Director, Messrs. Levinstein, Ltd., Manufacturers of Aniline Dyes and Chemicals, Manchester (representing the Manchester Chamber of Commerce).	7169	280
	**Sir Isidore Spielmann* (re-called) -	- - - - - - -	7331	285
24th Day - June 20th.	Sir HENRY AUSTIN LEE, K.C.M.G., C.B.	His Majesty's Commercial Attaché, Paris -	7458	292
	Mr. WILLIAM KELWAY -	Member of the firm of Messrs. Kelway & Sons, Nurserymen and Seedsmen, Langport.	7627	297
25th Day - June 27th.	Mr. FRANK BOWDEN - -	Managing Director of the Raleigh Cycle Company, Ltd., Nottingham.	7722	300
26th Day - July 18th.	Captain PERCY H. ATKIN -	British Commissioner to the New Zealand International Exhibition, 1906–7.	7880	305

* For further evidence by Sir Isidore Spielmann, see 2nd and 3rd days (pp. 14–20 and 30–31). Also Appendices I. II. and III. (pages 312 to 316).

MINUTES OF EVIDENCE

TAKEN BEFORE THE

INTERNATIONAL EXHIBITIONS COMMITTEE.

FIRST DAY.

Friday, 9th November 1906.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Sir James Kitson, Bart., M.P.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Isidore Spielmann.
Mr. S. J. Waring.

Mr. U. F. Wintour, *Secretary.*

Colonel Sir Herbert Jekyll, R.E., K.C.M.G., called; and Examined.

Colonel Sir H. Jekyll, R.E., K.C.M.G.

9 Nov. 1906.

1. (*Chairman.*) I think you are Assistant Secretary of the Railway Department of the Board of Trade?—I am.

2. I need not ask you about all the appointments you held in various parts of the world before accepting that office, but I believe you were Secretary of the Royal Commission for the Melbourne Centennial Exhibition in 1888?—I was.

3. And you were also Secretary of the Royal Commission for the Paris Exhibition in 1900?—Yes.

4. What is your opinion of the old system under which the exhibitors paid their own expenses?—I do not think it can be continued with advantage any longer. In the first place, the bulk of the manufacturers are tired of exhibitions; they have had enough of them, and it requires a very strong inducement to get them to exhibit at all. Certainly, the best manufacturers are reluctant to exhibit. Second-rate and third-rate people are often not only willing but eager to take advantage of an opportunity of showing their things and advertising themselves.

5. What are the objections of the best class of exhibitors?—They have several objections. First, they think it does not pay. The expenses to a first-class firm are very great, because, to exhibit adequately, they must spend a considerable amount of money, and they do not care to show unless they can show well. Expense is the first ground.

6. Then what would you say is the second?—The second is that, rightly or wrongly, they think the effect of exhibiting their things is that foreigners copy them.

7. In spite of the protection afforded by International conventions and agreements?—Yes. They are not perhaps so much afraid of being literally copied, but they think foreigners get ideas from them, and so are enabled to adopt the same kind of systems. The third objection is the argument one is always met with in approaching the manufacturer, namely, what is the good of exhibiting in a foreign country, when the tariffs are so high that their goods are excluded?

8. You said just now, I think, that the second-rate and third-rate firms were not only willing, but eager to exhibit?—Yes, it answers their purpose as a means of advertisement.

9. That is under what is called the old system?—That is under the old system, by which exhibitors paid all their own expenses.

10. What was the advantage of the old system?—The main advantage was the cheapness of it to the Treasury.

11. What is your experience of the system that foreign countries adopt now?—I think they are much more efficient, and that they enable a much better representation of the industries of the country, as a whole, to be made.

12. What is the system in Germany?—The system in Germany is, I believe, roughly, that the Government pays all expenses, and in return they claim and exercise the right of selecting what goods are to be exhibited. They send skilled people all over the country a long time before the exhibition takes place selecting out of the goods of all the principal manufacturers those which they think it is to the advantage of the general industry of the country to show.

13. Are they permanent officiars that they send round in that way, or are they appointed *ad hoc*?—I cannot tell you that. I have never made a study of the foreign systems, and all that I know is from general knowledge. My impression is that they have some permanent organisation in Germany which is the nucleus of an organisation that can be expanded when an exhibition takes place.

14. Can you suggest any other countries which notably pursue that system?—The United States do, and, I think, the French, too. To the best of my belief, all foreign countries, more or less, follow that system, but Germany is a notable instance.

15. Would you contend that we ought to adopt similar measures?—I think we should, if we are to compete on equal terms with foreign countries.

16. Have you any opinion as to how our manufacturers would like the Government to say what goods they should exhibit and what they should not?—No Of course, our manufacturers are not so much under the control of the Government as manufacturers are in foreign countries; and they might possibly resent any attempt at dictation.

17. Have you had any experience of friction with exhibitors, from your wanting them to exhibit in the way you think best?—There is little opportunity of friction, because, if you propose something which the manufacturer does not like, he withdraws.

18. But still there is friction?—Yes, but it comes to an end quickly.

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Colonel Sir H. Jekyll, R.E., K.C.M.G.

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19. That brings me to another point: I suppose their exhibits are more of a collective order than ours are?—Yes. Foreign countries almost universally adopt a system of collective exhibits, and their exhibits are therefore much more effective than the individual exhibits of British exhibitors.

20. How would you propose that we should adapt that German system to this country?—The first thing is to give a great deal more money than we have been in the habit of giving. Then we should approach the manufacturers, and as an inducement to them to allow their things to be shown, we should offer to take all the expense and trouble off their hands.

21. Would that money be voted when we heard of an exhibition or were invited to participate in one, or would you propose that there should be a permanent expenditure every year—in other words, do you suggest that there should be a permanent office for exhibitions?—If we are to continue the policy of taking part in these exhibitions, I think there should be a permanent office ; but it could be a very small one, and the cost need not be great. It might simply be the nucleus of an organisation ; and then, when an exhibition is in full view, that would be the time to expand and increase the staff so as to deal with the matter in a proper way.

22. Would you think it desirable to have the same people who have had experience before?—I think it is very desirable, because the work in connection with exhibitions is of a peculiar nature, and the experience gained in one exhibition is of great value when you are organising another.

23. I suppose you would have some difficulty in getting hold of the men if they were not permanently appointed? The people that you would want would have to be good men, would they not?—I think there should be some one good man appointed *ad hoc*, and permanently kept on. He would probably keep in touch with his subordinates in the previous exhibitions, and would be able to put his hand upon them when he wants them.

24. So you would retain the chief man?—Yes, I would.

25. What post would he hold—would it be the position that you have yourself held?—Yes, it would be very much like that.

26. I suppose you would have to pay him a goodish salary?—You would have to pay him a good salary, but I think it would be well worth while.

27. Have you considered the sort of salary that you would pay him?—I think not less than £1,000 a year, probably.

28. With what office would you associate this Department?—I should associate it with the Board of Trade. I think that there are more points of contact between the Board of Trade and exhibitions than, probably, between any other Department and exhibitions.

29. You are aware, of course, that about forty years ago, when I first joined, the Board of Trade was the Department which had the control, such as it was, but subsequently it went to the Education Office?—Yes, it went to the Science and Art Department. They managed the exhibitions for a long time. Sometimes the Foreign Office did the work.

30. What do you think about the advantage of a Royal Commission being appointed for this purpose?—It is a time-honoured custom to appoint a large Royal Commission, but I do not think it is a convenient instrument for this purpose. A Royal Commission is a very good thing for an inquiry, where a difficult subject has to be threshed out ; but I do not think a Royal Commission is a good executive body, especially when it is numerous and composed of very distinguished people, as these Royal Commissions are.

31. Did it attract exhibitors, do you think, at Paris, say?—No, I do not think so. It has some influence, I think, with foreign countries, because it is taken as a compliment by foreign countries that the exhibition should be directed by a Royal Commission.

32. Politically?—Yes, especially if it is presided over be a member of the Royal Family.

33. Your Commission for the Paris Exhibition did not meet very often as a Commission, I think?—It only met twice as a Commission—once for the opening inaugural meeting, and then there was one closing meeting. It appointed a number of committees, including an executive committee, which really exercised all the functions of the Royal Commission ; and a finance committee, which controlled the money.

34. Those committees met very often, I suppose?—Yes, they met frequently.

35. Do you remember what the German system was in that respect?—I do not think they had anything corresponding to our Royal Commission. They had a Commissioner-General, who, I believe, had large powers.

36. I do not think I have asked you whether you are really in favour of our continuing to take part in these exhibitions?—I am very doubtful whether it is to the advantage of the country that we should continue to take part in them.

37. Even with the improvements you suggest?—That is another point. I am quite clear that it is not an advantage to continue to take part in the exhibitions on the old system, because the result of the old system is that we get an indifferent representation of British goods, which are shown side by side with the best possible representation of foreign goods ; and that, I think, cannot be to the advantage of British industry. If the German system were adopted, there is something to be said for it, but then, of course, it is very costly.

38. (*Sir Isidore Spielmann.*) I think on the Commission for the Paris Exhibition you had over 100 Commissioners?—Yes we had, I think, 120.

39. Can you tell us, roughly, what proportion of them were working members of the Commission?—I should say, roughly, twenty. Though the number who took some part in the work of organisation was considerably larger.

40. And they were all members of the committees?—Yes. Those who did most were almost exclusively the members of the executive and finance committees.

41. You said that manufacturers fear that their goods will be copied if they exhibit at international exhibitions, but does not the same fear apply even in this country? If foreigners want to copy British goods, can they not do so in London just as well as, say, in Paris?—They can, but there are not the same facilities. The foreigner would have to come over here and find out the goods that he wishes to copy, whereas in an exhibition they are all displayed ready for him. I do not think there is very much in the fear, but it is one which is largely entertained by manufacturers, rightly or wrongly.

42. I am quite aware of that—I do not myself attach much importance to it.

43. An international exhibition is really a huge show-room, as it were, but the show-room already exists in London, and the foreigner might stand at a shop window and copy all the things that he sees there, just as well as at the show-case in the exhibition, might he not?—Yes, but then there are a good many things which are shown at an exhibition which do not appear in shop windows, such as machinery, and so forth.

44. But he could buy a machine?—Yes, he can, of course, do that.

45. And so copy it?—Yes.

46. So it is really not a strong objection?—I do not think it is a strong objection, but it is one which is widely held by manufacturers.

47. (*Mr. Malcolm Ramsay.*) I suppose your view, put shortly, is that the results obtained from previous expenditure on commissions have not justified the expense?—It is impossible to give an opinion upon that point without an exhaustive inquiry among manufacturers themselves. It is impossible to say whether exhibitions have done good to them on the one hand, or whether, on the other hand, abstaining from an exhibition would have done them harm. It is a matter of conjecture at the best, and it is only the exhibitors themselves who can really give an opinion upon that point.

48. Have you ever heard any opinion expressed as to the results that we get from our expenditure?—I have heard various opinions from individual exhibitors. Some are quite pleased and others are disappointed.

49. I suppose foreign governments go in for exhibitions upon an elaborate scale rather as part of the bounty system, do they not, and upon the general grounds of policy, quite as much as with a view to any

particular benefit that the individual gets from it?—I cannot tell you on what grounds they go in for it. I should think there are probably very various motives.

50. (*Mr. Wilson Fox.*) Do I understand you to suggest that the Government should pay practically for the whole of an international exhibition, as far as England is concerned, if she joins?—I think so. If it is to be successful they must.

51. It seems to me that the Government might do one of two things. It might pay for all of it, and absolve manufacturers and traders from all expenses; or it might pay for the organising portion of it, and for getting the exhibits on a uniform basis. I do not mean paying such expenses as freight, but of arranging for the space and arranging the exhibits when they got out there and so forth—all the expenses, in fact, which would be incurred in getting a proper organisation. Would you relieve the traders themselves of the expenses which they would naturally incur in exhibiting their things in a foreign country?—I think you will have to offer great inducements to get the best manufacturers to exhibit at all.

52. Would that not lead to this system, that it becomes ultimately an exhibit of governments competing between themselves, so to speak, instead of a competition between manufacturers and traders; and would it not finally resolve itself into the prize going to the government which has laid down the greatest amount of money?—I am inclined to think that that would be the ideal sort of exhibition. I should like to see all medals and awards done away with, and to make it practically a competition between governments.

53. But then the government which put down £5,000,000, say, would be the government that would score the most in the end—it is like the bloated armaments argument?—I do not think it could be swelled into figures of that size.

54. Do you not see any danger of there being a monetary competition between the treasuries of the various governments?—You could not spend more than a certain amount, because the space to be filled is limited.

55. It would do away with the real *bonâ fide* competition of the manufacturers and traders, would it not?—As individuals, yes it would.

56. If the Government were simply to go to a trader and take his goods and exhibit them and then bring them back in a year's time he would have his things shown free, and no expense would be incurred by him. Do you not think that would do away with any incentive to rivalry on the part of traders, and any desire on their part to show really good exhibits?—There would be no competition as among individuals, but it would enable the show of each country to contain the best articles which that country can produce.

57. If the Government insisted upon manufacturers sending their best things?—Of course one condition you must make with the exhibitors is that you shall have the right of selection.

58. At the present time a manufacturer if he were spending a considerable amount of money in sending things over, say, to St. Louis, at his own expense, would take care to send his best things?—Yes; of course he would send the best things that individually he has to show.

59. It would not be worth his while under those conditions to send bad things?—No, but of course he may not be a first-class man.

60. How is it that the first-class men do not show now, and the second-class men do show? Why is it the interest of the second-class man to show, if it is not the interest of the first-class man to show?—Because the first-class man's business is so firmly established that he gets all the orders he wants, and he does not want to advertise himself, whereas the second-class man wants to bring himself into notoriety.

61. There is an opening for him at an exhibition, you think?—Yes, there is an opening for him. The first-class man, if he exhibits at all, has to do it on a large and expensive scale, because he cannot afford to do it badly, whereas the second-class man can do it in a much more moderate way.

62. I do not quite understand why some of these men put forward the high tariffs as an excuse for not showing, because that difficulty applies equally to all countries, does it not? Supposing we were showing in St. Louis and we wanted to push our goods in America, the high tariff would apply equally to the French and the Germans who also wanted to push their goods in America, would it not?—Yes. It is only a disadvantage as against the American who is exhibiting in his own country.

63. Do you think that a British manufacturer shows at a foreign exhibition because he does not like not to show on account of powerful trade rivals who show?—I think that is an inducement very often. It is one of the embarrassing things of a voluntary system that if you get one first-class man who is willing to exhibit, there will probably be two or three others who are on the same level with him in the same business, and who will think it necessary therefore to exhibit also; and in that way you get a great duplication of the same class of goods.

64. Would you say that some men would not show if their keen trade rivals did not show?—Yes; but as soon as the trade rival shows they must come in too.

65. In the report of the Paris Exhibition which you wrote I see you suggest that it would be an advantage if chambers of commerce or manufacturers' associations were to get up exhibits or organise them, in order to get more uniformity in the way they show?—Yes, and to avoid duplication.

66. Supposing the exhibit of goods from Sheffield, say, was organised by the Sheffield Chamber of Commerce and put on a uniform basis, the local manufacturers sending their best things and the exhibits having to pass the Chamber of Commerce; might that not be tried as an experiment, before the whole thing was thrown in the hands of the Government with the danger of these large expenses being incurred?—I think that it would be a very desirable thing to enlist the co-operation of the chambers of commerce and other local bodies too, but I think the expense would be the same. You would have to pay the Chamber of Commerce, because you could not expect the Chamber of Commerce to do it at their own expense.

67. It would probably be the least expensive method of doing it, would it not?—It would.

68. Supposing there was a director of exhibitions in London, and he had the Sheffield exhibit organised for him down there, and then despatched in a finished and concrete form, that would save expense, would it not?—It is not easy in all branches of industry to adopt that system. In the case you are quoting, of Sheffield, the steel industry of Sheffield is, of course, a local industry, and it would be quite possible for some local body to take it up, and to secure a very fine collection of Sheffield goods; but there are other industries which are not localised in that way, and are scattered all over the country.

69. I quite agree, but at any rate it could be done in some trades, for instance, in cotton and woollens?—Yes; the woollen trade in Bradford is an example.

70. It could also be done with the Potteries, probably?—Yes.

71. And probably with glass to some extent?—Yes.

72. May we take it that you would generally approve of an attempt to carry out a system of that sort, if it could be established?—Certainly; I think it could be done in that way.

73. (*Sir James Kitson.*) Arising out of your point that foreign governments are in more direct association with manufacturers, I dare say you saw in Paris the exhibits of Krupp's, of Essen?—No, I did not see them.

74. They exhibited in Paris on a very large scale, and they also exhibited in Düsseldorf, as you may remember?—Yes.

75. It is understood that there are direct relations between Krupp's and the Government, is it not?—Yes, I believe there are very close relations between them.

76. And therefore the Government have every opportunity there of exercising pressure, if you like to put it so?—Yes.

77. And of ordering very extensive exhibits to be made?—Yes.

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73. Through their contracts with Krupp's the Government can subsidise Krupp's in regard to their exhibits?—Yes.

79. That, I think, is understood?—Of course they have close relations with them of all sorts.

80. The same thing obtains with reference to Schneider, of Creusot, does it not?—That is the French company—yes.

81. They have direct relations with the French Government in regard to the marine, the artillery, and the rest of it, and the Government can bring pressure to bear on them, and also, what is better than pressure, can give them support. Is that not so?—Yes.

82. Our manufacturers cannot get that by our system of estimates, can they?—No.

83. You were saying there is a reluctance on the part of the great manufacturers to exhibit now?—Yes, there is.

84. Does that apply to the heavy engineering trades, such as the marine engine trade?—Yes, I think it does. I ought to say there are some brilliant exceptions. We had some magnificent exhibits by large people like Mather and Platt, and Vickers, Sons and Maxim, who made a splendid exhibition. But these were exceptions to the rule.

85. Perhaps you could trace the motive; the motive, I imagine, would be to bring themselves before the Governments?—Quite so, in the case of manufacturers of war material.

86. But the object of an exhibition, I imagine, is to bring exhibits before the people?—Yes.

87. That would not be *their* motive; their motive would be to stand well with Governments?—No doubt.

88. You may remember seeing the exhibit of locomotive engines at Paris, do you?—Yes.

89. Were they not all made by the railway companies?—I think so.

90. Those exhibits were made by the railway companies, I imagine, because they interchange information with the administrations of two of the railways in France?—I cannot tell you what their motive was, but to the best of my recollection all the exhibits of locomotives were by railway companies.

91. Were you acquainted with the Exhibition of St. Louis?—No; I was on the Royal Commission, but I was never there.

92. With reference to your point about organisation, if there was an organising staff for the British exhibits, do you think you would find that organising staff would be of very great service to them without the necessity of Parliamentary Grants for the exhibition itself; that is, do you think that the one might exist without the other?—I should doubt whether that would be a sufficient inducement.

93. Do you remember the exhibits in Paris of Leeds cloth?—Yes.

94. And of Leeds leather?—I do not remember the leather.

95. You might cite them, I think, as examples of co-operation in exhibits which you have insisted on in your evidence?—There was an exceedingly good co-operative exhibit of cloth from Bradford. It was organised by either the Corporation or the Chamber of Commerce at Bradford. It was exceedingly well done, and was one of the most effective exhibits in our section. But it was an exceptional thing, and we found it difficult to get different manufacturers in the same line of business to combine.

96. I suggest to you that it is not quite so exceptional as you imagine. I have had some experience, and I think that it has been done in other exhibitions?—It has been done, I know, and wherever it is done, it always succeeds.

97. (*Mr. Waring.*) Are you absolutely clear in your own mind as to the value of exhibitions to the country from a national and from an individual standpoint. Are you quite clear that there are distinct advantages?—No, I am not at all clear.

98. Are you clear that there are distinct advantages under what you would term ideal conditions?—I think that then possibly there might be an advantage. I think the main reason why we take part in exhibitions is often one of high policy—it is diplomatic, so to speak. An invitation comes from a foreign country, and it is looked upon as an unfriendly act to refuse it.

99. That is from the general standpoint?—Yes.

100. And it is what you might call the initiative point?—Yes. But I am not at all clear that when we have accepted the invitation and taken part in the exhibition, it does any good to our industries.

101. I suppose you would divide the question into two classes—one, the national, and the other, the individual benefit or disadvantage?—Yes.

102. Do you think, from the national standpoint, an exhibition conducted under ideal conditions would be an advantage to the nation?—I think possibly it might.

103. Then from the individual standpoint, if it were conducted on the lines you suggest, and as mentioned by Sir James Kitson, on a co-operative basis, that would give you a representation of the most capable houses in a specific line. Do you think there would be an individual value and advantage in that?—I think it would still be a national advantage. The main point is to get the best representation of our industries to be shown side by side with the industries of foreign powers.

104. Do you think there is much individual advantage from a firm's standpoint?—That is a question which can only be answered by asking the firms which have taken part in exhibitions, whether they have found it to their advantage or not.

105. You have not formed any personal view on that point, have you?—I have not, and I have no means of forming an opinion. I take it that there is no justification for spending public money for the advantage of individual firms. The only justification can be that it does good to the industry of the country as a whole.

106. Are you quite clear about the position in Germany—that they pay the whole of the expense?—That is my belief.

107. I asked that question because I understood they paid half?—I cannot answer with any degree of certainty, but my belief is that they pay, if not the whole, the larger proportion.

108. What are your views in regard to the definition of expense?—Do you mean the whole cost of the exhibit, or do you mean such loss as might be entailed upon the manufacturer in exhibiting? You see, there is, first, the original cost, then you have to consider, secondly, the value of the goods as they are brought back, together with the freightage and such matters?—I think he should be compensated for anything that he is out of pocket in the transaction.

109. Any loss?—Yes.

110. In regard to the question of control, on which you have had a great deal of experience, may we take it that by the word "control" you mean a supervisory control? You would not, would you, permit the manufacturer to initiate and suggest himself; there would be an individual or a committee exercising a supervisory control over a representative group, would there not?—I should like to see the names of individual manufacturers suppressed, and I should also like to see awards suppressed, and to have each industry forming a collective exhibit of the best that it could show.

111. What advantage would there be in suppressing an individual name?—I think you want to bring the goods into prominence, and not the names.

112. By suppressing the name, would you not kill largely the desire of the manufacturer to gain such personal advantage as he might otherwise hope to gain?—The great point is that his *raison d'être* for exhibiting is his personal interest?—I think that if the superiority of a particular class of British goods over the corresponding goods of foreign countries could be shown at an exhibition, customers would be induced to come to this country in order to purchase those goods. They would soon find out for themselves who the best manufacturers were. I want to show them that, say, the steel goods of this country are better than the steel goods made in other parts of the world.

113. The great point in these things is the personal equation, and I must confess I cannot see what advantage you will gain by suppressing the name of the exhibitor, whereas I can see great advantage in bringing out his name?—By suppressing his name you get rid of the advertising element, which is so very pro-

minent in all these exhibitions, and, in my opinion, so injurious.

114. (*Mr. Harris.*) To press a little further the point Mr. Waring has just put, do you not think, on further reflection, that possibly if you get rid of the individual element in an exhibit—although I understand what you mean by the benefit to the industry of the country as a whole—the foreigner would be left without any inducement to try and purchase in this country, because he would not know where to go?—I think he would easily find that out. If he is convinced that he can get better steel goods in this country than anywhere else, he will soon find out where to go for the steel goods.

115. (*Sir James Kitson.*) Do you think the buyer would find out the seller if the seller did not find out the buyer?—Yes.

116. (*Mr. Harris.*) So that you think that if you could impress the foreigner with an idea of the paramount excellence of British goods you would gain a practical advantage to British trade?—I do.

117. There is one point upon which I should like to be quite clear. When you speak of the advantages held by the Germans you do not, I suppose, imply prejudice on the part of the foreigner against the British in an exhibition, but you mean that they gain this advantage by their own organisation?—Yes, they gain it by their organisation. I may just illustrate it in this way: A British manufacturer likes to exhibit his own goods in his own way and in his own show-case. He will not submit to any interference or suggestion. He says: "Either I show in my own way, or I do not show at all." The foreigner does not exhibit in that way. Certain of his goods are selected, and they are exhibited by the Government organisation in a large case with similar goods made by others, and the general appearance of the exhibit is much more attractive than are a number of show-cases of different sizes and shapes containing the goods of individual manufacturers.

118. (*Mr. Waring.*) Is that not largely owing to the fact that under the old *régime* they had to pay for everything, and they thought naturally that those who paid the piper should call the tune?—I have no doubt that is so. It is part and parcel of the old system.

119. (*Mr. Algernon Law.*) You said that grants were usually given for diplomatic reasons, but do you not think they are very often given owing to pressure here from people who may be interested in various ways in exhibitions being held?—There is no doubt a certain amount of pressure, but I think the main pressure is one of high policy rather.

120. Do the exhibitors under what you call the old system, which I suppose is the existing system ——?—Yes.

121. Do they all pay their expenses—the packing and all that kind of thing?—In Paris they paid all their expenses of packing and freight, and in earlier exhibitions they even paid for their space.

122. Even for art exhibits?—No; art exhibits stand on a footing by themselves; they are quite distinct. I have only been talking about industrial exhibits.

123. Do some large foreign firms, we will say German firms or French firms, refuse to exhibit?—That I cannot tell you.

124. Can you say whether the colonial system is different from ours, because they seem to combine in a general exhibit in some of the exhibitions I have seen?—Some of the colonies are very keen about exhibitions. Canada, for instance, was exceedingly keen in Paris, and so were the Australian colonies. The only difficulty we had in relation with them was that they were not recognised by the French Government as distinct from the mother country, and the colonies rather resented that.

125. Under the old system I think the Treasury used to refer exhibitions to the Society of Arts, and they managed them. Was that a good system for promoting exhibitions and for making them successful?—I can hardly tell you that.

126. Were all the members of the Royal Commissions members of committees, or were some of the Royal Commissioners merely ornamental? You said in relation to one that 20 members took an active part in the work, but I suppose there were more who were members of committees?—Yes. There were a number of committees formed, and they all took some part in the organisation of their sections.

127. Some members, I suppose, held out altogether?—Yes.

128. When dealing with the question put to you that if one country spent a great deal of national money on exhibitions another might go in for competition in that matter, you said you thought there would be a limit; but did not the Americans spend something like £5,000,000 over the St. Louis Exhibition—was not that amount of money put into the exhibition?—That was in their own country. The expenditure is always large in the country where the exhibition is held, and the receipts are also large.

129. You also said you did not think the Chambers of Commerce could be expected to contribute to the expenses of exhibitors?—You might here and there find a Chamber of Commerce which was willing to contribute, but I do not think you would find a very widespread desire on the part of Chambers of Commerce to bear the expenses of their exhibitors.

130. With regard to the awards, do you find that they are granted to a particular nation in proportion to the number of exhibits in a class?—No. I think the juries try to give their awards in proportion to the merits of the exhibits, as far as they can. But the whole system of awards and juries is a very objectionable one. It gives rise to a great deal of bitterness and ill-feeling, and very often the results are unsatisfactory.

131. And that you would never get rid of, even if we had a very good system of exhibiting?—You can only get rid of it by abolishing the system of awards altogether.

132. (*Chairman.*) Then you would be in favour of agreeing internationally not to have awards at exhibitions?—I would, certainly.

133. (*Sir Isidore Spielmann.*) Do you not think that a very large number of firms, when they do exhibit, exhibit with the sole object of obtaining awards, such as the grand prix or the gold medal?—Undoubtedly they do.

134. Especially those firms who have taken a long string of the highest awards; they cannot afford to remain out and see a younger firm, perhaps, take the award over their heads, is that not so?—I think that is very often the case.

135. Even without any idea of doing business at an exhibition, they go into it solely with the object of taking the highest awards?—I think that is very likely to be the case.

136. (*Mr. Wilson Fox.*) If there were no names of traders given and no awards, it would resolve itself absolutely into a Government exhibit of the products of the country, would it not?—It would.

137. Do you think if the Government paid the whole of the cost of a British exhibit to go abroad, that, assuming present conditions, more traders would consent to exhibit—that is, supposing they were relieved of all cost?—I think so. It would be a great inducement to them, and the whole thing would be lifted on to a higher plane.

138. Would not the Government be placed in this position—that it would be rather invidious for them to have to select to whom they gave this free advertisement, because it would be giving the traders whose goods they sent, a free advertisement in a foreign country?—Not so much in the absence of the names. We are supposing the names to be suppressed.

139. I can quite understand that that would be so, but in the present circumstances, supposing the names were sent, the Government would be practically giving the firms they select a free advertisement in a foreign country?—Yes, they would.

140. Which might give rise to considerable discontent among the firms who were not selected?—Yes.

141. (*Chairman.*) You are giving me the idea that you consider that one country has to show superiority over another country in a whole collective exhibit; but do you not rather recognise that in these days it is by certain specialities that one country excels another?—I think that each country should concentrate its efforts upon its own specialities; and some countries do, with great success. For instance, at Paris the principal Swiss exhibit was one of watches,

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in which they excel; they did not attempt to compete in a great many classes of goods in which they do not excel.

142. So you do not think that the whole of a collective exhibit, even in a big class, would be superior in one country; there would be certain specialities which would be better in one country, and others which would be better in another?—Undoubtedly.

143. Having regard to that consideration, do you think you could safely suppress all the names of the exhibitors?—(*Sir James Kitson.*) Need the names be entirely suppressed? The Bradford exhibit we have referred to, for instance, was a collective exhibit, but a list of the names of the contributing manufacturers was given, so that the inducement to a manufacturer to take part in the collective exhibit of one industry might still exist?—Yes. In the case you have mentioned, you could not identify any particular piece of cloth as being made by any particular manufacturer. It was a joint exhibit of a number of the principal manufacturers of Bradford, who all showed their goods in the same case.

144. Does that come near to what you would prefer?—Yes.

145. (*Mr. Waring.*) Do you think it would be an advantage to hold a great international exhibition in England at an early date?—I do not think it would for industrial purposes; it might for political purposes, but not for industrial purposes.

146. May I ask what you mean by "not for industrial purposes"?—It is a very difficult thing to make an exhibition effective which covers the whole field of art and industry. It is such a gigantic enterprise, and yet it has to be done in a comparatively short time. I am much more in favour of small local exhibitions of particular industries, than of attempting to combine all industries into one huge show.

147. Then you do not attach much importance to the mammoth influence of a great impressive exhibition on the manufacturing world?—No. Of course it does a certain amount of good to the place where the exhibition is held, because it attracts a large number of visitors, and they spend money.

SECOND DAY.

Friday, 16th November 1906.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman.*)
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
The Rt. Hon. Sir James Kitson, Bart., M.P.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Swire Smith.
Sir Isidore Spielmann.
Mr. S. J. Waring.
Mr. U. F. Wintour (*Secretary.*)

Colonel Sir Charles M. Watson, R.E., K.C.M.G., C.B., called, and examined.

Colonel Sir C. M. Watson, R.E., K.C.M.G. C.B.

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148. (*Chairman.*) I think you were connected with the St. Louis Exhibition of 1904?—Yes; I was secretary of the Royal Commission, and Commissioner-General.

149. I suppose you had to do with the whole of the arrangements?—Practically I had. I was a member of every committee, and I also had to take charge of the transport and of the installation at St. Louis.

150. When did the work begin?—A Committee was appointed by the Foreign Office in February, 1903, and that was turned into a Royal Commission on the 23rd April, 1903.

151. (*Mr. Wilson Fox.*) Is it the year 1903 you are now speaking about?—Yes; our work practically began in February, 1903.

152. (*Chairman.*) How did you begin?—The first thing we did was to write a letter to a great many manufacturers, to find out what steps they would take as regards supplying exhibits. We also communicated with, I think, 100 Chambers of Commerce, to see if they would be willing to help us in organising a good British exhibit; but we got very few answers, and after the Royal Commission was appointed, we sent out another circular to nearly 9,000 different manufacturers.

153. What reasons were given why they did not exhibit?—There were varying reasons. Some said it was on account of the high tariff in America; some said it was because they were so busy that they could not be troubled; and a good many said that they did not care about exhibitions, as they did not think exhibitions did them any good, and therefore they would rather be excused.

154. You visited some of the manufacturing districts, I think?—Yes. I went to some of the most important manufacturing districts to try and ascertain if by conversation we could draw them in; but I did not meet with any strong support. For instance, I went to the Chamber of Commerce at Bradford. I went to Bradford especially because they had had a collective exhibit at Paris; but I found that they were not at all anxious to take part in the St. Louis Exhibition. As a fact, of the Chambers of Commerce that we communicated with, practically none gave us their assistance.

155. You did not propose a collective exhibit at that time, did you?—The collective exhibit idea was started after the Royal Commission had been appointed. The Prince of Wales, in his speech at the first meeting of the Royal Commission, laid a good deal of stress upon the advantage of getting collective exhibits, if it was possible.

156. Was that in order to induce manufacturers to exhibit?—It was to try and induce them to come in.

157. And was it also in order to make a better show?—What we were anxious about was to get a good show; and we found that it would be quite impossible to get a show at all in the Department of Manufactures if we did not go in for collective exhibits.

158. You had individual exhibits as well, did you not?—We had a certain number, but only a small number, comparatively speaking. I think our total number of exhibits in the collective exhibits was nearly 800, but of individual exhibits I think we only had 89.

159. So that the proportion was about ten to one?—Yes.

160. Which was the most important of the collective exhibits?—The chemical exhibit was the most important one. It was a very admirable exhibit. It was organised by Sir Boverton Redwood and Mr. Salamon, who were two of the Royal Commissioners. They got together a really splendid collective exhibit of the chemical industries. We had goods from

97 different chemical manufacturers, many of whom had previously refused to exhibit at all; and the exhibit was arranged in such a way that every manufacturer's name was shown, and he had a special part in the exhibit to himself.

161. Do you think it important to show the name of the exhibitor?—I think it is absolutely essential. I do not think you would get people to come at all if you did not give their names.

162. Do you think they would not come if it were to advertise their country only?—I do not think it would be possible to get them on that ground. There is one point I might mention here, and that is that, even if they had been willing, we could not have done so under the exhibition regulations; because the regulations of the St. Louis Exhibition, as, I think, of most exhibitions, laid down that the goods must be shown in the name of the manufacturer.

163. You had other collective exhibits as well as the chemical exhibit, I understand?—Yes. We had several very good collective exhibits. We had a good one of lace and embroidery in the manufactures section; we had one in ceramics; we had a good one in sporting guns; and then we had other collective exhibits which were not in the line of manufactures. We had, for instance, photography, geography and exploration, books and typography, and civil engineering.

164. You say you attracted the exhibitors by having collective exhibits; was the system of collective exhibits any help to you in assisting you to get the best goods?—There is no question about it, because with the collective exhibit plan you simply say what goods you want, and ask manufacturers if they are willing to supply them. You have it entirely in your own hands to get a good collection of articles together.

165. Did you get a good number of awards?—Yes, we got a very excellent number. Possibly you know the arrangements under which exhibitions give awards to collaborators who have assisted in exhibits, as well as to the actual exhibitor; that is, in the case of, say a beautiful china vase, the exhibition would probably give a grand prix to the manufacturer of the vase, and a gold medal or a silver medal to the designer of the vase. Leaving out the collaborators, of whom we had a good many, we got 126 grands prix, 204 gold medals, 129 silver medals, and 77 bronze medals.

166 (*Mr. Wilson Fox.*) What was the proportion of those awards to the exhibits?—Nearly one per exhibit, I think.

167. (*Chairman.*) So that practically everybody got a prize?—Yes. The American jury said they thought every one of our exhibitors ought to get a prize, the exhibits were so good.

168. That is very satisfactory?—Yes; they used very enthusiastic language about it. I could tell you the total number of our exhibits. In regard to the education exhibit, we did not go in for awards at all, and in regard to the art exhibit we did not go in for awards; but if you leave out the exhibits in education, art, and applied art, we had about 730 exhibitors, and we got 536 awards.

169. I should like to get from you the reason why manufacturers do not care to be represented at exhibitions abroad?—I talked to a great many manufacturers about it, and the general feeling appeared to be that it did not seem to do very much to help their particular industries, and they were doubtful whether the volume of trade was increased by the fact of showing in foreign exhibitions. It struck me—of course I speak under correction—that a good deal of it was due to the way in which British trade is conducted; that is, the manufacturer very rarely, in the case of ordinary manufactures, gets into touch with the person in the foreign country who wants to buy his goods, and the trade all passes through the hands of what I may call middlemen or agents. I had one or two rather curious instances of that in the St. Louis Exhibition. We were very anxious, for instance, to get a good show of British needles, of which a large number are sent to America, and I could not get any needle manufacturer to exhibit for one reason or another; but when I was at St. Louis an American merchant came to me and said he wanted space in the British section to show British needles. I said to him, "But what name are you going to show them under?" He said, "Of course, my own name." "Not the names of the manufacturers?" I said. He replied, "No." Then I explained that under the regulations he could not have space.

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170. Were his needles from Redditch?—I do not know where he got his needles from; but I went to Redditch, and saw the leading people there, and they with one accord said it was not worth their while to show.

171. The agents do not want to show the names of the manufacturers?—No, I think not; and that is natural. I do not see why the man in America who buys the goods should want to let his rivals know whom he has bought them from.

172. What is your suggestion to get over that?—The only way is to have collective exhibits, and then the Government pays for sending the things over. But, of course, that would be giving an advantage to the manufacturer at the expense of the Government.

173. Would the manufacturer pay nothing?—In the case of our collective exhibits he paid nothing. We found that was the only condition upon which we could get them.

174. I see there is a charge in your accounts for St. Louis for exhibits, so that you paid for them?—I think you will find that the charge for the cost of exhibits was something very small, and I think I could explain that.

175. If you please. Will you take one class?—I will take the chemical exhibit, for instance.

176. I see the cost of those exhibits was just under £2,500?—Yes. That was spent almost entirely on buying a plant for showing low temperature experiments. You will see we take credit for that at the end, because I succeeded in selling it to the American Government, and we got a very good price for it. They wanted it for their Bureau of Standards in the Department of Commerce at Washington, and they had been going to purchase a low temperature plant from the same people we had got ours from, so they were very glad to get it rather cheaper from us. It was therefore good for both parties.

177. That is larger than the other classes. Take the class of instruments of precision; I see there that the cost of the exhibits is £138 out of a total of £800; I suppose that would be for instruments to test?—No; it was principally for an exhibit organised by the Royal Mint. Speaking as a rule, we paid nothing for the exhibits.

178. On the other hand, a great item in your balance-sheet seems to be salaries?—And transport.

179. Salaries, entertaining, and travelling were all very large?—The travelling was a necessary thing, on account of the staff. It is so in every exhibition, especially with distances such as you get in America, where travelling and living are expensive. There the subsistence allowances had to be made high on account of the expense of living.

180. Under exhibits the salaries come to £9,000, and the travelling to about £6,000?—The total travelling came to more than that.

181. I was giving the figures from the exhibit section only, but under the general head salaries come to £9,000, travelling to £10,000, expenses of jurors to £2,400, and entertaining to £1,300; so that altogether in those classes you get nearly £40,000?—Yes.

182. Is that more than would be the normal?—It is rather less than it was at Paris. I thought it would be worth while making out what the same items were in Paris. Our salaries and wages were £9,483, not including those in connection with the collective exhibits, and at Paris they are put down as £14,960; our entertaining was £1,346, and at Paris it was £1,660; and the jurors at Paris were £3,233, against £2,489 for St. Louis. So that in this respect we were not excessive.

183. Do you think that may be taken as normal necessary expenditure?—There is no getting out of it if the thing is to be done on a proper scale.

184. You must have all that entertaining?—You must do it. The entertaining is half the importance of the exhibition.

185. (*Mr. Wilson Fox.*) That is the opinion held by those who are entertained, I suppose?—It is essential. We could not allow the French and the Germans and the Japanese and all these people to entertain everybody, and not return it.

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186. (*Chairman.*) Those figures do strike people outside as rather large?—I was most economical.

187. I am sure you were?—I was careful with every penny, and I kept it down as far as possible.

188. Yet, here there is a large expenditure of £40,000 for salaries, entertaining and travelling?—From some points of view the entertaining was a more important thing than the exhibits. It should not have been so, perhaps.

189. Now, I should like your opinion whether any particular exhibition has had a beneficial effect on particular trades?—I think it is a most difficult thing to give an opinion on that.

190. Do you feel it to be so?—I do. I have known some of our exhibitors say that they were very well satisfied. For instance, I think Messrs. Doulton sold the whole of their exhibit; at least, they told me they sold it all. Then Messrs. Birch, who had a very fine exhibit of furniture, sold the whole of their exhibit; and the linen people from Belfast and Dunfermline, and one or two others, I believe, did very well. Then Messrs. Baker, of Willesden, who made baking machines and confectionery machinery, I believe, did very well; at least, Mr. Baker told me so, and he really seemed quite satisfied.

191. According to the accounts, which I have just glanced at, there were no sales except in the art section?—These accounts do not show any of the sales of private exhibitors. These accounts only show the sales of the collective exhibits. I know nothing officially as to what the private exhibitors may have done; I only know of it in conversation.

192. I notice that £7,000 to £8,000 is the amount of the sales of works of art, and that there are amounts of about £500 in other sections?—Practically, we had nothing else to sell except lace and china.

193. You are still speaking of the collective exhibits?—Yes; we had nothing to say about the sale of private exhibits.

194. What you have told us just now is outside those sales?—Entirely. The private exhibits are not alluded to in these accounts, and we do not know what it cost the different exhibitors, or what they made.

195. Your chief point seems to be that Great Britain cannot wisely decline participation in these exhibitions?—Take the case of St. Louis. Supposing we had been the only country not there. There were 40 countries exhibiting, and every country in the world was there except Switzerland. If we had remained away it would have been very marked. I do not see how we could have stopped away.

196. (*Mr. Wilson Fox.*) Do you mean that our absence would have been marked from a diplomatic point of view?—From a political point of view.

197. I mean from a political point of view. It could not be marked from a commercial point of view, because, as you say, you could hardly get the people to exhibit?—The point is, is the whole object of the exhibition to exhibit manufactures, or is it to show a friendly feeling between the different countries? That, of course, is going beyond my scope, so to speak.

198. (*Chairman.*) Our first object here is to consider the effect on British trade, and what is good for British trade?—As a fact, we could have had a very fair exhibit if we had not had any manufactures at all. I have here a catalogue of our whole section (*exhibiting same*). These pages are the only ones that are devoted to the Department of Manufactures.

199. And what is the rest of the book concerned with?—The rest of the book deals with art, education, liberal arts, photography, civil engineering, and all the other different exhibits.

200. As regards the method, do you think a Royal Commission is satisfactory?—I think it works most satisfactorily. The majority of our Royal Commissioners took a great deal of interest in the exhibition, and worked very keenly, especially, as I have mentioned before, Sir Boverton Redwood. If it had not been for him and Mr. Salamon, we would never have had that chemical exhibit. It was all due to personal hard work on their part. Then, if you take the exhibition of books and typography, Sir Maunde Thompson, the head of the British Museum, worked very hard at it: he saw every book himself, and practically organised the whole show.

201. I think you have something to say to us about the present system of dealing with International exhibitions?—Yes. I think there ought to be some permanent office where the records could be kept, and where, when an International exhibition came on the *tapis*, the matter could be considered whether the British Government should be represented or not. At present, everything is started afresh when a new exhibition comes, and the information is found to be distributed. I think the greatest amount of information about exhibitions is to be found at the Society of Arts; Sir Henry Wood would, I am sure, tell you about that. Then, there is more information to be found at South Kensington; there is more at the British Museum; and all the records go to the Record Office, and all the books go to the Treasury. So that, really, you have to start afresh and gather things together. I had an immense amount of trouble at starting. My argument is, that there ought to be some place where there would be a library of exhibitions. Supposing, in ten years' time, there is another exhibition, whoever has to start it ought to be able to go to this office and find all the records about previous exhibitions. That would save infinite time and trouble.

202. This office would be an advisory department, I suppose?—Yes.

203. You would not propose that they should be authorised to begin spending money?—Not a penny.

204. I am afraid the Treasury would not allow that?—The Treasury should not allow it.

205. This office would have the right to advise what could usefully be spent?—Yes, and more especially what should be spent; but the decision must remain with the Treasury.

206. What sort of sized office would you contemplate?—It might be a very small office. The main thing is to have a place where you can keep the library and the records. We have a great many books, for instance, in our office now, and when our office comes to an end, as it will shortly, those books will all be scattered. In the case of the Paris Exhibition, I believe a good many were sent to the Society of Arts and to other places; but Sir Isidore Spielmann would know about that.

207. Shortly, what are your conclusions on this point? I think you have an opinion as to the British Government taking part or not in these exhibitions?—In some exhibitions, like that at St. Louis, I think the British Government would have had to have taken part, even if no manufacturers had come in at all; but I think the British Government should not take part in them, unless they do it on a sufficiently large scale to keep up the credit of England. I think small votes to exhibitions ought to be avoided.

208. Do you think that in keeping up credit, they are bound to spend as much as another country, Germany, say?—We did not spend nearly as much as Germany.

209. Did we not?—No, nothing like it. I suppose that at St. Louis Germany spent two or three times what England did.

210. What about entertaining; did they entertain more or better than you did?—I think they must have spent more in entertaining. France, I believe, spent a good deal. Japan did not spend so much, though I think as regards exhibits that probably Japan was one of the first.

211. What do you think about small grants in aid of private efforts?—I think it better not to give those, because when the British Government gives a small grant, then the other countries think the British Government is supporting the Exhibition, and the result is not equal to the dignity which the British Government ought to maintain.

212. Then, I take it, you would either have a Commission or something equivalent to it, or not take part in the exhibition?—Either that or nothing.

213. Your last recommendation, I understand, is that which we spoke of just now, namely, that there should be an office established?—Yes.

214. Should that office keep in touch with Chambers of Commerce?—I think that would be very advisable. Probably, in the course of time, it would eliminate the difficulties that there are now with Chambers of Commerce, because it could find out whether such-and-such Chamber of Commerce would like to be represented,

and would like to take part in exhibitions. At present, it comes upon the Chamber rather suddenly, and they decide, probably rather suddenly also, that they do not want to participate.

215. I think you told us earlier that you visited some of these Chambers?—Yes, and we wrote to a good many.

216. Did you visit a good many?—I went to Bradford and Leeds, but I think those are the only two I visited personally.

217. And you did not find that they were anxious to help you?—Not in the least, in fact, it was quite the reverse; they said it would do them no good, and that their members would not help.

218. And even in the result, the manufacturers did not help you very much?—Not very much.

219. (*Mr. Algernon Law.*) Do you know what was the result of the chemical exhibit in the matter of business, as shown by the sales?—I do not know, and I can give you no information about that. Sir Boverton Redwood, I think, would probably give very good information on that point

220. Why do the exhibition authorities always insist on the names of exhibitors being given; is there any reason for it?—I must say that I think it is a very good rule. I think it is an essential rule that you should know who made the article. I would like to read the rule as it was at St. Louis—Section 1 of Article 7, "Exhibitors of manufactured articles must be the manufacturers or producers thereof." The object was to prevent agents showing; they wanted to get the actual producer to show.

221. You have given us the proportion of the awards to the British exhibitors; what relation did it bear to the proportion that other countries had?—I do not know, as I have not worked it out. We have never seen the list of awards of other countries. It is rather a pity, but the exhibition authorities up to the present day have never published a full list of the awards, so we do not know at all what awards the other countries have received.

222. Then, as regards the objections raised by agents, do you know whether foreign firms employ agents?—I do not know whether that practice produces any effect in the case of the foreign firms or not.

223. A good deal of money is usually spent on the pavilion is the pavilion of any practical use?—I think it is essential. We could not have got on without it at all. It was required for reception, and it had all the offices of the Royal Commission Staff in it. These are absolutely necessary.

224. You used it, did you?—I think the British pavilion and the British garden was one of our best exhibits. We used the British garden to exhibit the horticulture. We had as exhibitors seedsmen from various parts of England, and we planted a succession of flowers during the period of the exhibition, and they were judged on the results of seeds, so as to keep the garden nice the whole time of the flowers. One of our most effective exhibits was the British garden.

225. But you could have had the garden without the pavilion?—You must have a pavilion for offices and also for entertainments, if you want to do the thing properly. Every country had a pavilion there, and not only had every country a pavilion, but nearly every State of the United States had a pavilion.

226. Is it necessary that pavilions should be built of such substantial material as they usually are?—Ours was built simply of wood, with a cement coating; it was all timber.

227. Yet, it cost a large sum of money?—I think it cost about £26,000—about the same as the Paris one, I think.

228. (*Sir James Kitson.*) When you say that the pavilion and the garden were effective, do you mean effective in point of business return, or effective as a show and an entertainment?—There was no business return from the pavilion.

229. (*Mr. Wilson Fox.*) What was the value of that pavilion after the exhibition was over?—Practically nothing. It is rather curious that our pavilion is the only one that was left standing. It was considered that it would be advantageous to keep it as part of the university—our pavilion stood on the university grounds—and so the university people took it over at a very small value, just a nominal value. If they had not taken it over, we would have been put to the expense of pulling it down, which would have cost a considerable sum. All the other countries had to pull their pavilions down.

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230. (*Mr. Algernon Law.*) If it were known beforehand that the United Kingdom never exhibited, do you think that would have any effect on foreign countries, and that they would not be so much disposed to send exhibits to exhibitions?—I hardly like to give an opinion on that subject. I am inclined to think that when a big exhibition comes, the Government will have to take part in it whether they like it or not.

231. In regard to the proposed office, I suppose you were able to get the papers relating to the Paris Exhibition?—Yes; but it was a good deal of trouble—we had to send to the Record Office for them.

232. If you had sent to the secretary of the Paris Exhibition, Sir Herbert Jekyll, he would have been able to give them to you, would he not?—He could only tell us where they were. It would have certainly saved me a great deal of trouble if I had not had to go to various places to get hold of the papers. I think there ought to be a place where outsiders could go and find out about exhibitions. It is quite likely you would have more people willing to exhibit if there were some office where they could go to obtain information on the subject beforehand. At present it seems to be regarded that there has never been an exhibition before, and so the whole thing is started afresh. I should like to have a library with all the exhibition literature, so that any manufacturer could come in and read the reports of all the countries about the results of any previous exhibition.

233. (*Chairman.*) Those would be always on record?—Not only on record, but ready for reference.

234. And they would show that somebody or other had got a big prize?—Yes.

235. (*Sir James Kitson.*) Do you know that such a library exists as far as the iron and steel trade is concerned?—That is quite likely.

236. Mr. Bennett Brough, the secretary of the Iron and Steel Institute, has one?—No doubt; but if they are only arranged for special trades like that, you would have to go about from one place to another.

237. (*Mr. Harris.*) Following up Mr. Law's last question, do you think that you were put to any material expense in searching for the papers relating to the Paris Exhibition? If you had had the library of which you have been speaking, would there have been a money saving?—I do not think I could say that. It would have been a saving of time and a great convenience.

238. You said just now that Germany spent much more on their exhibits than we did; did you form any impression as to whether they got a greater practical return?—No. I could not say that, because one would not know that for a year or two after the exhibition. It was said that Germany spent £300,000.

239. Ordinary gossip did not give any information as to any practical return that they had?—No; besides, the results would not have been known in St. Louis itself

240. (*Mr. Malcolm Ramsay.*) Do I understand that at St. Louis British trade, as a whole, was very inadequately and very patchily represented?—Yes, certainly.

241. A large number of the most important trades were not represented at all, were they?—That was so; for instance, we had no cloth exhibit, and cloth, of course, is one of our greatest manufactures.

242. And you had no steel, had you?—We had no steel, and we had no machinery. We practically gave up trying to exhibit in the machinery department. As it was, there were two or three trifling British exhibits in the machinery department, but as a whole we had no show at all. We could get no machinery firms to exhibit; they said it was not worth their while.

243. When you organised your collective exhibits, did you get any help from Chambers of Commerce?—No; practically it was all done by the committees.

244. Direct with the manufacturers?—Yes.

245. That is, you went direct to them?—Yes.

246. And you had nothing in the shape of local organisations to tell you which were the best firms?—No.

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247. Do you think that if we were to attempt to introduce a collective system into this country, manufacturers would come in generally; I mean, if we were to try and follow what I understand to be the German method, namely, insisting on all exhibitors' exhibits being collective, could we get a complete representation of the country, or would manufacturers stand out?—I do not know I think it would be a difficult piece of work, but we would certainly get a much better exhibit by that means than in any other way—much better than by depending on individual manufacturers.

248. Did I understand you to say that we ought not to participate in exhibitions in future, unless we adopt the collective system?—My own personal feeling is that it would be better to make that the rule.

249. Have you formed any idea of the sort of sum which we should have to give in future to secure adequate representation on the lines you suggest?—It would be very difficult to say. I think it would be necessary to work it out for each special trade before you could do that.

250. Would you think participation on collective lines would involve more money than was spent on the St. Louis Exhibition?—It would depend whether you had more collective exhibits. Take, for instance, our chemical exhibit, which I think was a typically good example of a collective exhibit; that collective exhibit we know cost about £10,000 to the Government.

251. I am trying to arrive at some idea of the least possible figure at which this country could be adequately represented. Our grants have ranged from small sums up to £150,000, the grant for St. Louis, which was the biggest grant that has ever been promised, and which was not all spent?—That is so. I do not think at a large exhibition England could possibly do it for less. Supposing, for instance, that we had tried to do it at St. Louis for £30,000, say, as was originally proposed, I think we would only have made a mess of it. My own personal view is that we should have shown very badly before the other nations, and I am quite sure we would have been much better out of it altogether.

252. Of your expenditure at St. Louis, a very large proportion was what one may call unremunerative expenditure?—Yes.

253. The bulk of it was on education, art, the applied arts, and typography, and the amount spent on the show of manufactures and trade was very little?—That is. a small proportion.

254. As regards your suggestion of an office which would advise about exhibitions, I presume that that office would not advise until the Foreign Office or the Government had considered any invitation received, and that they would then only speak as to the details of ways and means, etc.?—I think they ought to keep their eyes open, as it were, so as always to be ready to give an opinion as to the prospects of exhibiting at a particular exhibition. I do not think they ought simply to be an office of record.

255. But their functions would be merely advisory?—Purely advisory.

256. The decision would rest with the Government, naturally?—Yes. They ought also to keep the records; that would be a very essential part of their work.

257. (*Sir James Kitson.*) You were speaking of the immense amount of preliminary work that was required, and you referred to your appeals to manufacturers, and so on. Can you tell us what was the staff that you employed in sending out all those inquiries and conducting that correspondence? Is it a large staff that you ask for?—The staff for the St. Louis Exhibition is given in the report.

258. You did a great deal in calling different meetings, and so on; I remember I attended some?—Yes. Our staff was about 20 in number.

259. Do you know the cost of that staff?—The total cost for the salaries and wages of the staff for the whole time was £9,483.

260. Supposing you had an organising secretary simply to organise the appeals, what would be the preliminary cost then, do you think?—It would be rather hard to give that.

261. The figure you have given us, I take it, is the total cost in connection with the exhibition?—Yes. No part of the work was treated as preliminary; as we worked on, we gradually increased the staff. We started with two clerks, and then, as the work increased, we added to the number of employees.

262. I want to suggest to you that if there was an organising staff, which made all these preliminary inquiries, its cost would be separate from the cost of running the exhibition?—Quite so.

263. And it might be that you could lessen the latter cost by having that organising staff?—I quite think that.

264. Can you give an idea what the cost of maintaining that organising staff would be?—I would not like to give that; that would require some consideration.

265. (*Chairman.*) Could you give us, later on, your estimate of the cost of a permanent office, such as you would like to see?—A very small staff would do. I will think it over, and see if I can send you that information.

266. (*Sir James Kitson.*) You had a good deal of experience, apparently, in visiting various Chambers of Commerce and so on, and you received, I understand, discouraging replies from those that you met?—Yes.

267. Had those people who discouraged you had experience in exhibitions?—I could not say.

268. Had they found that it really did not answer their purpose to exhibit?—That is what they told me.

269. That was the answer they gave you?—Yes. For instance, I had a long talk with the Master Cutler of Sheffield over it, and he said he would do his best to get the Sheffield people to come in; but afterwards he told me that there was not one person in Sheffield who would participate, and we had not one. He said it was not worth their while.

270. You would advocate exhibitions from the point of view of maintaining the prestige of the nation?—That is a point.

271. But not from the point of view of the commercial result?—Unless, by some means, the manufacturers could be induced to believe that it would be good for them. I do not think at present they believe it; it is possible that they may be wrong.

272. Will you be surprised to hear of an exhibitor at St. Louis who received a grand prix, and also a further grand medal, and who, after all this time, has had no commercial result whatever?—I think it is very probable, and I can quite believe it.

273. You have given some information to the Committee about the Americans not desiring to publish the names of manufacturers; do you know that the selling agents in America are merchants, so to speak, who are agents for particular firms, and have exclusive rights of selling for those firms?—I understood so.

274. And commercially they guarantee the accounts?—Yes.

275. Therefore, it is quite patent that they cannot allow the names to be published, so that their consumers could go direct to the manufacturer?—That was my idea. I might mention another case. I have already referred to the needle manufacturers. I had also a visit from an American agent, as I think you call them, who said he wanted space in the British section to show velveteens. He said that he imported annually about four million dollars' worth of velveteens, and he wanted to show them. I said exactly the same thing to him; I said, "Is the name of the manufacturer to be shown?" "No, certainly not." Then I said, "You cannot have space." He said that he actually got four million dollars' worth of finished velveteens from England every year for sale in America, and he wanted to bring those to the notice of his customers in the South.

276. (*Chairman.*) But in his own name?—Yes. That bears out Sir James Kitson's statement.

277. (*Sir James Kitson.*) I think it explains the position quite clearly?—Yes.

278. (*Sir Swire Smith.*) You think it very important that the display should be collective, and that the State should bear the expense of it?—I think that is the more satisfactory way, and it is the way which is followed, I believe, by other countries, such as France and Germany, and, I rather think, Japan, but I am not sure about Japan.

279. Under that arrangement, how should the selec-

tion be made?—By the committee who is in charge of the collective exhibit.

280. By this means, I presume—that committee would go to some eminent manufacturer, probably?—The committee, probably, are people engaged in the trade themselves.

281. And they would persuade him to send his goods at the expense of the State, and then, if a medal or some important prize was given for those goods, I presume the manufacturer would get the benefit of it?—Yes.

282. That is, the medal or the prize would be given to the maker of the goods?—Yes, of course.

283. Although he had been at no expense in contributing to the cost of the exhibition?—That was the case at St. Louis. With all our collective exhibits it was the makers who got the prizes, not the committee.

284. But it would be very important, in your view, that the committee should make the selection?—Yes.

285. Now, what should that committee be—should it be a State committee or a local committee?—I think it is much better that it should be a central committee. Take, for instance, our chemical committee, which was a very good example. The chemical committee was composed of Sir Boverton Redwood, Mr. Gordon Salamon, Mr. Tyrer, and Mr. Wightman, who are all, I think, connected with the chemical industries. Then you might take our machinery and electricity committee as another instance; Sir James Kitson was on that committee, and also on the transportation committee, I think.

286. You pay the expenses of the collection, and the difficulty which arises in my mind is how you should discriminate between the goods of one manufacturer and the goods of another; because you are evidently going to favour somebody, if you can almost guarantee beforehand that a manufacturer shall get a medal or some prize for his exhibit?—I do not see how you can do it otherwise. Take, again, the case of the chemical exhibits; the committee there decided who were the best chemical manufacturers. I suppose they probably wrote to 200 or 300, and out of those 200 or 300 they got 97 to agree to exhibit. Of course, some people will never exhibit, even in a collective exhibit.

287. In a collective display your object would be to get the best productions from every industry?—Yes.

288. In so doing would you not favour a local competition or a competition among all the producers of these goods, so that the Committee could select the best without our knowing at the time the names of the makers?—I think the Committee would have to know the names of the producers.

289. I suppose it would always be open to manufacturers to exhibit on their own account by bearing the expenses?—Yes.

290. You have spoken of the significance of entertaining; who were the people who were entertained, I mean, what was the class of people whom you entertained?—In the first place, there were Commissioners from 40 different countries, and of course they had to entertain one another. Then, there were all the exhibition authorities, who were very numerous; and then there were all the different State authorities; there are 45 States in the Union, and every one of those had a Commissioner-General and a staff. Then, of course, we had a great many people who came down from Washington, and from the east of America, and from the west of America. Really, the social functions formed a very important feature of the exhibition.

291. What would you consider to be the proportion of cost between the exhibits of manufactures and the exhibits of those other more popular things? The manufactures figure up very small in number, apparently?—Yes.

292. I am wondering what would be the proportionate cost?—Our actual cost on the lace and the embroidery exhibits in the manufacturing department was £4,300, and on ceramics £1,800. Those were the only two collective exhibits we had in the manufactures department, unless you class the chemical exhibit also among the manufactures.

293. I should?—That cost £10,000.

294. Would you consider that visitors take very much interest in the exhibits of manufactures?—I think those who are interested in the manufactures do, but the ordinary individual does not take very much interest in them.

295. Then it is rather a small proportion of the visitors who take an interest in them?—A small proportion. Most of them just walk through the house.

296. (*Mr. Wilson Fox.*) A great many of the traders and manufacturers in this country, no doubt, thoroughly understand the art of pushing their goods and of advertisement?—Yes.

297. And many of them have come to the conclusion that that particular form of advertisement which consists in sending their goods to a foreign exhibition is not a paying one?—Yes.

298. In those circumstances, if the British Government try to advertise those goods, instead of the gentlemen who thoroughly understand the art of advertisement, do you think the British Government are likely to be more successful than they?—Some of the manufacturers do not think so. I have asked them that question, and they say they would rather be left to do it in their own way. One manufacturer, in particular, I recollect, said he wanted the Government to let him manage his business in his own way; he said, "For God's sake, let the Government leave me alone."

299. A witness said on the last occasion when we were here that British second-class manufacturers and traders were showing in exhibitions abroad more than the first-class ones were, and the reason he gave was that the first class traders and manufacturers had made their name, and therefore it was not so essential for them to advertise their goods in foreign exhibitions. I put it to you, may not that equally be said of Governments, and may not a backward country with a small trade find it much more necessary to advertise its goods at exhibitions than a great manufacturing and trading country like England, who has made her reputation?—I think it is quite possible. Some of the South American States, for instance, did a great deal to push their business at the Exhibition. The Argentine, Brazil, and Chili, all made very good shows, and they were evidently very anxious to push their business. The same may be said of Cuba and Mexico. Another country that really made an excellent show for a small country was Bulgaria. Those small countries were very anxious indeed so I agree with the point of view you put forward.

300. In the *précis* of your evidence you say that one of the reasons for British manufacturers and traders not showing their goods is, that they are afraid of having their goods copied abroad; it looks to me as if our goods in many respects were so good that they are better than the goods of other nations, if we are afraid of having them copied?—It struck me at the Exhibition that our goods were the best, and a number of Americans said so to me, but they added, "Your things are too good; they are too expensive."

301. Does it not come back to my point, therefore, that we may have made our reputation to such an extent in the world in many classes of goods that our people have come to the conclusion that there is no business in advertising those goods in this particular form?—Yes, I think there is a good deal in that.

302. We hear of Germany, or some other nations, spending £300,000 at an international exhibition, but they may for all we know be doing a very foolish thing?—Yes.

303. I mean the industrial success of a country is not to be measured necessarily by the amount that it spends on these exhibitions?—No.

304. I do not know whether you have any information as to whether a considerable number of people who showed at the Paris Exhibition dropped out in the St. Louis Exhibition?—Yes; a great many did.

305. Did you hear any of their reasons for that?—One was that it was too far; another reason that was very commonly given was that the tariff was so high. On this last point it was very hard to arrive at the truth, because, on the other hand, several manufacturers have told me that their trade would be ruined if the American tariff was reduced. They said they did a large trade with America, but they sent nothing but the very best goods, which would stand the tariff, and if the tariff was reduced other people would come in and sell inferior goods and cut them out. There may be

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something in that; there does appear to be a certain amount of soundness in it.

306. Now about the expenses which should be paid by the Government; do you suggest that all the expenses of British exhibits in a foreign exhibition should be paid by the Government?—In the case of the St. Louis Exhibition it was the only chance of getting exhibits at all.

307. Would you pay a man the expenses of the preparation of his exhibit?—No, and that was not done. Really, the position was that the Royal Commission borrowed the articles and showed them.

308. Did they pay for the packing?—No, they did not pay for the packing or for the unpacking.

309. Did they pay for the freight and insurance?—They paid freight, insurance and installation.

310. (*Chairman.*) Not unpacking?—They paid for the unpacking at the Exhibition, but not for the unpacking when the goods arrived home again.

311. (*Mr. Malcolm Ramsay.*) You received the goods packed in the first instance, did you?—Yes.

312. (*Mr. Wilson Fox.*) Did they pay for the space and accommodation at the Exhibition?—No; nobody paid for space.

313. Did not the Government pay for space?—No, nothing was paid for the space.

314. It is a very important matter if manufacturers have to rent their space?—Yes; but as I have said, there was no charge for space at St. Louis.

315. Was it given free by the Americans?—Yes.

316. What was the case at Paris?—At Paris, I think, there was no charge for space; but it is usual, I think, to charge for space.

317. Do you see any objection in the suggestion that the Government should pay all expenses? Would you suggest that where a charge for space is made the Government should pay it, or that the trader should pay the rent, for instance?—I think if you have a collective exhibit you will have to put that in with the other expenses.

318. I only want to get your view on the point?—I think you would have to do so. At St. Louis there was nothing of that sort. They did not, however, provide us with proper floors. They only provided a rough floor over the whole space, and then, when we wanted a better floor we had to lay that down ourselves. Of course, we had to put up everything in the way of screens.

319. Then I come to Sir Swire Smith's point, with regard to the difficulty of selection when you have paid all these expenses. You have a large number of people in the same trade, all competitors and all taxpayers; would they not say, "We have a moral right to send in these circumstances, and you have no right to pick one man out before another, and to give him a free advertisement, and also a gold medal." I cannot see the answer to that if they do, can you?—The difficulty up to the present has been to get them to come, even under such conditions as that.

320. But you are endeavouring now to get them in by paying the whole of their expenses and simply taking their goods out for six months and bringing them back; and if you are trying to get a much larger number of people, do you not think that these free terms will induce a number of people to send?—I can only judge by what we actually proposed when we sent the circular out about the collective exhibits. We sent out to nearly 9,000 people, out of whom the following answers were received:—510 said they would not exhibit at all, 95 said they would exhibit independently, 36 said they would exhibit collectively, and 61 were uncertain. Out of 8,700 we finally only got 60, of whom 35 exhibited collectively and 25 singly. We would have been very glad to have had as many of them as possible.

321. Do you consider that you got a representative exhibit on that occasion?—No.

322. Then, the object of the Commission was not really achieved, if you did not even get a representative exhibit?—We certainly did not get a representative exhibit of manufactures, except, I think, in the chemical industries.

323. I understand that you would prefer not to show at all rather than not get a representative exhibit?—As I say, in the case of St. Louis, we could have done very well if we had left out manufactures altogether, just as we left out machinery.

324. It would be pitiable if at a great industrial exhibition the manufactures of Great Britain were left out of the British exhibit?—It would be unsatisfactory; but still, if you cannot get the manufacturers to come in you cannot help it.

325. Looking at it from the Treasury point of view, if £150,000 has to be paid for side shows and not for British manufactures, that is a strong case against the exhibition, is it not?—I quite see that.

326. Would not most people in this country say the *raison d'être* of a foreign exhibition is the benefit of British trade? If we can make something out of it, indirectly or directly, well and good, but if we are only to show armour and pictures, however interesting they may be, how far is the taxpayer of this country, who is already overburdened, to be asked to contribute towards such objects?—I think that is a fair argument. At St. Louis our principal exhibits, you might say, were in the sections of fine art and applied art. Then the Queen's Jubilee presents were in some ways one of our most important exhibits, because it instructed the Americans about England. Then there was the education exhibit; that did not do trade any good, but it was a very important exhibit. Then there was the transportation exhibit; that, of course, might do a little good, but not very much. Our principal exhibits, you can say, were not in the line of trade.

327. But it is in that line that we must concentrate in the future, if exhibitions are really to be of practical use to us?—It might be better if we did.

328. May I put to you just one point about the suggested central office? Somebody at a central office, with a continuous knowledge of what has gone before, could organise the freight and insurance?—Yes, quite easily.

329. A man who really understood that could get better terms than a fresh secretary coming in, who had to buy his experience for the first time?—Certainly.

330. So there would be an advantage there?—Yes; there would be an unquestionable advantage.

331. He would know where to lay his hand upon packers?—Yes.

332. It is very important in exhibition work, I believe, to get hold of men who can really pack well?—Yes; that is an important point.

333. Then the man we are talking about would probably be able to lay his hand upon the skilled men who had been employed before on an exhibition?—He would keep a register of them.

334. And that would be an advantage?—That would be a great advantage.

335. (*Sir Isidore Spielmann.*) In your *précis* you refer to the fact that you visited various manufacturers, who gave you the answer that they would not participate because trade was good; do you think that if you had called upon them at any other time, perhaps six months before or six months later, when trade was less good, you would have secured some of those manufacturers?—I do not think so, because then they would have said that trade was so bad that they could not afford to exhibit. I am quite sure that would have been the answer.

336. You have referred to the satisfactory exhibit of chemical industries, which was organised by Sir Boverton Redwood and Mr. Salamon; do you think that if the same trouble had been taken, and the same intelligence displayed by other committees, other collective exhibits equally good might have been formed?—If we had had longer time, I think it would have been possible; but the time was rather too short. I think it is more than likely that we would have got others. The one I was most anxious to get was cloth, and I think possibly we might have got a cloth exhibit. There is a very large amount of English cloth sold in America.

337. Then you say that foreign agents do not care to exhibit, because they would have to disclose the names of manufacturers, while the manufacturers cannot exhibit without the permission of their agents. Did you take any steps to induce manufacturers to procure that permission?—Yes. I asked several, and they said they would; but I never heard anything more. I suppose probably the agent would not consent.

338. Then you say, later on, that you would strongly recommend that the British Government should not take part officially in any international exhibition unless sufficient funds were granted to insure a satisfactory result. I believe that you have not spent anything like the grant the Government gave you for St. Louis?—No, we have not spent it all.

339. If you had spent more money, do you think you might have achieved a better result?—It is very difficult, when you are starting a job of this sort, to make an estimate, because you must take care to be on the safe side, for we had the most stringent instructions that we must not exceed the estimate. As a fact, one or two of the exhibits that we had hoped for did not come off, so, of course, we saved money in those directions. Take the case of the chemical exhibit. I had estimated originally that it would cost £12,500, and as a fact it did cost over £12,000, but we got a good return by selling the low-temperature plant, the result of which was to reduce our real expenditure to £10,000; so we saved £2,500 on that item alone. But we must put against that that we estimated the art exhibit at £12,000, and it cost us £14,600; you know the reasons for the increase. It is, therefore, exceedingly difficult beforehand to make an estimate which you will stand to exactly, and no more.

340. Reference has been made to your expenditure for entertaining. Were you not allowed a grant for entertaining, and requested not to exceed that amount?—The grant that was given us was £2,000, but we did not come near it; we only spent £1,346.

341. You had 36 Commissioners on the St. Louis Exhibition?—Yes.

342. Can you tell us how many of these Commissioners were working Commissioners?—I think the majority of them were. There were only a few who did not work, and the majority helped very much. Mr. Webb, of the London and North-Western Railway, for instance, was very ill all the time, so, of course, he could do nothing; and there were one or two others. Several of the 36 were also Art Commissioners, and you know they always came to the Committees.

343. What is your opinion on abolishing awards at these exhibitions?—I think it would be totally impossible. I do not think anyone would go at all if there were no awards. They set great store by them; in fact, it often seems to me that they set more store by them than they are worth. We have had an immense amount of correspondence with exhibitors who tried to get higher awards. A man gets a gold medal, and he is never satisfied unless it is turned into a *grand prix*, and he cannot understand why I cannot turn it into a *grand prix* for him. I used to have to tell them over and over again that really I was not the jury. They were tremendously keen about the awards.

344. (*Mr. Harris.*) As regards the assignment of awards, did the jurors assign direct to the individual manufacturer in the case of a collective exhibit, or did they simply grant an award to the exhibit, and leave the Committee to assign the award?—The jurors examined each exhibit in the collective exhibit, and assigned the award.

345. To the individual?—To the individual. The other way would have been very unsatisfactory.

346. (*Mr. Waring.*) You mentioned that the chief reasons given by manufacturers and firms for not exhibiting were the high tariff, "too much trouble," and "exhibitions do no good"?—Yes.

347. Were there not other reasons given for not exhibiting, particularly at St. Louis?—One or two said they did not wish to exhibit in America.

348. Were there not other reasons given?—I do not remember any other reason.

349. From the individual standpoint, was not the reason urged that the expense was enormous to go to St. Louis?—Yes, on account of the distance.

350. The cost was enormous?—Yes. It was higher than going to Paris, for instance. But I did not hear that that was often given as a reason.

351. Did you not hear it given as a reason by those who would have gone that the great point which deterred them was that the cost was out of all proportion to any possible gain?—I think I did hear that once or twice, but it was not made what you might call the ordinary reason. I should think the most ordinary reason I got was that they were too busy. Of course, there were other reasons. For instance, one manufacturer told me he did not wish to exhibit in an uncivilised country.

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352. That is another point. Was it not an important factor that St. Louis was not so highly civilised, or the surroundings were not of such a character as to make it worth the while of a great number of manufacturers to exhibit?—I dare say that had something to do with it. They may have thought there would not be so many people coming to the exhibition.

353. And that there would not be a demand for their class of goods?—Yes.

354. There was not that high degree of civilisation in that particular neighbourhood so far west as to make it worth their while going over?—I dare say that had something to say to it.

355. Have you heard expressions of opinion from manufacturers as to whether they considered the St. Louis Exhibition was a failure or not?—I have heard very little expression of opinion. I have heard some very favourable expressions of opinion. One gentleman—I do not know whether the Committee will examine him, the Mr. Baker to whom I alluded before—expressed a favourable opinion of the exhibition and of the results to his firm.

356. From a business standpoint?—Yes; but I expect there are varying opinions upon it.

357. You are not quite clear?—I am not at all clear, and I could not undertake to give an opinion on the subject.

358. You seem to attach great importance to the social aspect of an exhibition?—It is a very essential part of it.

359. And you attach great importance to that?—Yes.

360. Out of the £150,000 that we spent at the St. Louis, or that was granted for the St. Louis Exhibition, have you any idea what was the cost of, say, the buildings as compared with the salaries?—It is all specified in the accounts attached to the Report.

361. Roughly, do you know what is the proportion of what one would call the social parts—that is, the travelling and the entertaining—to the cost of the buildings?—The travelling expenses were connected with the exhibits. As a fact, the collective exhibits cost £48,122, as against a total of £121,000; but to that you ought to add the cost of the installation. Indeed, there are a number of other items that really ought to be added, such as the installation, the storage of empty cases (which is a heavy item), the catalogues, and the jurors.

362. That would go into the £120,000?—These items are included in the £120,000.

363. But you have £48,000 for the exhibits?—Yes.

364. That would leave £72,000; what would that amount be spent on chiefly?—A large item was installation and decoration, including the erection of façades.

365. How much was that?—£5,800.

366. That would make it £53,000?—Yes.

367. Then practically more than half of the money voted to St. Louis was spent on matters of an ornamental nature?—No, not half.

368. Over half?—No; because you have to include the salaries. They were for the exhibits, too.

369. What is the real value, from the practical standpoint, of the Commissioners' building?—Every country ought to have a building for its headquarters.

370. But there is a great expenditure for it?—Yes.

371. Assuming that the expenditure is justified—I am asking this for the purpose of getting information for the future—what is the real value of that building from a practical standpoint?—I do not know that from a financial standpoint you can say it is of any value, except that it saved the cost of offices, but it is a very necessary feature of an exhibition.

372. (*Chairman.*) You said, I think, just now that we could not be represented without it?—We could not be represented without it; that is the point. If we had not had a pavilion, and had not entertained, it would have been much better for us not to have been there at all.

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373. (*Mr. Waring.*) I am afraid I am not quite clear on that point, and that I still do not quite appreciate what the value of the entertaining is. What would you term the value of the entertaining and the ornamental part of it? Is it a political good?—I should think it is more political than anything else, as far as I know, but really I have never considered the question. I was told I had to go and do as well as I could, and that is an essential part of the work.

374. Would it come under your function at the exhibition, or would it come under anybody's particular instructions, to compare the relative merits of the English or any section of the English exhibition with those of the German sections or the American sections?—We were all judged by the same jurors.

375. I mean for the purposes of information and for instruction in the future, or for securing some specific value to the nation?—No; I do not think anyone would do that.

376. Nobody said, "We are pretty well ahead in this kind, and we are behind in that"?—The best written opinions on that subject are in the jurors' reports, which are all in the Report, because they went very fully into that very question.

377. Comparatively?—Comparatively. Most of the jurors, after reporting on the British exhibits, also reported shortly on each of the foreign exhibits, and showed where they were ahead of us and where we were ahead of them. Those jurors' reports are very well worth reading. Here, for instance, is Mr. Redgrave's report on ceramics, which appears on the first page I open. He says: "My general conclusions upon the ceramic displays at the St. Louis Exposition lead me to believe that more novelty and originality are to be found in the works of foreign countries than in those contributed to the British section, and that in countries where State schools making a special study of ceramic processes have been founded—as, for instance, in Germany and Austria—a great influence for good upon the manufactures and many original features in design and workmanship can be traced." That is a very useful and helpful remark, and there are many of those all through the jurors' reports.

378. Might not an exhibition be made very beneficial by one ascertaining what the particular requirements of a country are, as shown by its own exhibits?—Yes.

379. Some real, practical good might be obtained in that way?—Provided you can get the manufacturers to exhibit; but that seems, up to the present, to be the great difficulty.

380. One is, perhaps, speaking somewhat personally in this matter, but I should imagine a great factor in that was the cost?—I think it is very likely.

381. I am rather under the impression, as regards this particular exhibition that you were associated with, that the cost was a tremendous factor?—It was.

382. The cost was abnormally high compared with any results that might be obtained?—Yes, of course, American railway freights are high, although they made a reduction, and gave us half fares each way.

383. Had you any particular point in your mind when you became associated with that exhibition as the real object to be aimed at in an exhibition—that is, whether the object was to bring manufacturers together from various countries, or whether exhibitions should be promoted more from the political and social standpoint?—No; I had not considered that before.

384. Have you formed any conclusion since?—My conclusion rather is—I say it with great hesitation—that I do not know that it does the manufacturers much good, but that at the same time I think it would be very hard for the country on certain occasions to keep out of an exhibition, politically speaking.

385. But, from the business standpoint, you practically have not studied it very much?—No, I have not.

386. So there is not much point in pursuing that further. Did you give any particular attention to Germany, except in a casual way? Were you impressed with the German exhibits?—I thought the German exhibit was very good, but the exhibit which impressed me most of all, I would say, was the Japanese exhibit.

387. Would you say Germany and Japan?—Yes; but I think in some ways Japan was better than Germany.

388. Was the point that impressed you in the German exhibit the individual nature of the exhibit or the manner in which it was presented? Was it presented in a better way?—Both exhibits were collective. Practically, the Germans worked on the collective system, and so did the Japanese.

389. Was it the collective system that impressed you, or was it the individual exhibits?—I think it was more the excellent way in which they were arranged collectively.

390. That is because they were largely helped by the Government?—Yes.

Sir ISIDORE SPIELMANN, a Member of the Committee, examined.

Sir I. Spielmann.

391. (*Chairman.*) You are a Member of this Committee, and you acted as Honorary Assistant Secretary of the Royal Commission for the St. Louis Exhibition?—Yes.

392. You were also Honorary Secretary of the Fine Art Section of the British Commission for the Brussels Exhibition of 1897?—Yes.

393. You were also Director of the Fine Art Section of the Royal Commission for the Paris Exhibition of 1900, and Honorary Secretary of the Art Committee of the Royal Commission of the St. Louis Exhibition of 1904?—Yes.

394. And you are Director for Art in connection with the British Government exhibit at the present New Zealand International Exhibition?—Yes.

395. What is your opinion about the effect of international exhibitions upon manufactures and art in this country?—I think they are stimulating as regards both arts and manufactures.

396. As I understand, you think that those who have participated intelligently in international exhibitions must have benefited, directly or indirectly?—I do. I refer particularly to those who take the trouble to exhibit properly—those, for instance, who send attractive show-cases with well-arranged exhibits, and a representative who knows his business, and who usually secures orders or important awards—a man who can explain exhibits thoroughly to the British juror, and also to the international jury when it comes round. On the other hand, as a contrast, numerous exhibitors send on their own account extremely ugly show-cases, with exhibits arranged in a most inartistic manner, whose representatives perhaps are rarely in attendance, even when the British jurors want information, and are incapable of acting for their firms in the way they should.

397. Going back to the first class, you say they must have benefited. Have you reason to know that they have had good orders in their particular classes?—I have reason to know that a great many have, but among those who have benefited many have taken high awards, either gold medals or *grands prix*.

398. Do you think those have helped them in their business subsequently?—I do. I think they have been most important to them.

399. Then we come to the question of copying the goods exhibited. Do you think there is much in that fear which is entertained by many in this country?—I think it is very much exaggerated, and I also think that if other people copy British goods, British exhibitors can, and very often do, copy the foreign goods they see there—sometimes to our advantage.

400. Coming to the commercial results, do you think those have been sufficient to warrant public expenditure?—Not if the existing methods continue. I think we exhibit under a disadvantage.

401. Would private enterprise have done better?—I do not think so.

402. On what conditions, as regards other countries, should we make grants? For instance, have we been treated as well as other countries in regard to space,

and so on?—No. Speaking from experience, I know that Great Britain has often had an inadequate amount of space in various sections, and very often that space has been in very unsuitable positions.

403. Has that been accidental? It has not been on purpose, has it?—I cannot say that it has not been on purpose.

404. Do you suspect it has been on purpose?—I can give you a case in point. At the St. Louis Exhibition the British Art Section had a less good place than either Germany or France, much less good. Perhaps the amount was adequate, but its situation was extremely bad. It could only be approached through the sections allotted to Germany and Holland, and we had great difficulty in having an additional approach made to it, and that was only done weeks after the exhibition opened.

405. Can you tell us the usual way in which the British section has been worked?—In Great Britain we are usually in the hands of Royal Commissions, or sometimes of the London Chamber of Commerce, and the delay that is occasioned by our methods usually compels us to start at a very late date, and so we have to rush the preparation of our exhibits.

406. Have you any opinion about the present system, which allows a free hand to the exhibitors?—When they participate on their own account they are allowed to do pretty well what they like—to send what they like, and in show-cases of any size or shape or description, the whole thing being a very inharmonious display.

407. Have you come across any instances of manufacturers being not allowed by their agents to exhibit?—I have not.

408. As regards the methods in Germany and France, do you know the German method?—The German method is an organisation under the German Minister of Commerce, who has a trained staff of assistants. When they participate in an exhibition, the Minister, who takes a personal interest in the work, does not invite exhibits, but he actually requests them—he almost orders them—from the various firms, and he forms his "collective" exhibit in that way.

409. He has no power to compel them, has he?—He has, perhaps, no power to compel them to participate, but I think his requests are very strong inducements.

410. Does he have a sort of competitive examination then, in the best things?—I believe they have; and it is well known that the Emperor himself takes a special interest in the selection; in Art, for instance.

411. Did you ever hear that in Berlin, in 1897, they were already preparing for the Paris Exhibition of 1900 by a sort of competition under Government auspices?—Yes, I did hear that.

412. The expenses are all paid by the Government in Germany, are they not?—They are.

413. And all the trouble is taken out of the exhibitors' hands?—Yes, all the trouble is taken off their hands. May I say one more word about the German method of exhibiting? They now seem to make it a rule to participate very largely and at great expense in pretty well every international exhibition. Even at Liège, where this country did not participate officially, Germany had a very large and a very important exhibit. At Milan, I am told, they again had a very important exhibit, and at every exhibition, even of minor importance, they participate. It is not uninteresting either to note this fact—that, although Germany participates in every international exhibition she can, she never has one in her own country. It is curious to note that they have not had an international exhibition since 1870, 36 years ago. I think the correct inference is this—that she is interested only in showing her manufactures and in advertising them in foreign countries, but is less anxious to show foreign manufactures at home to her own population.

414. Now what is the system with regard to France?—In France exhibitors who desire to participate do so through the *Société Francaise des Expositions a l'Etranger*, which is a society composed of a large number of exhibitors—over 2,200. They contribute annually to the Society, and when there is an international exhibition the Society does all the work for its members, and the Government makes a grant on each occasion, the Government recognising the Society.

415. Do you mean by "recognising" it that the Government subsidises it?—Yes.

416. It is one of those societies which, under the French law, are regarded as a public utility, just as many other societies are?—Yes. The same thing applies to the fine arts section; but that particular Society has nothing to do with the fine arts section, which is worked by the Ministry of Public Instruction and Fine Arts. The permanent Office for that department is always kept going whether there is an international exhibition on or not, and at a cost, I think, to the Ministry of Education, of about £600 a year. It is regarded as a permanent department.

417. That is for the art sections?—Yes.

418. In your experience do they show well under art?—They do. They have their difficulties owing to the existence of rival societies, but their Art displays are invariably good.

419. They did not show as well as we did at St. Louis, did they?—No. I may say that at Brussels (1897), Paris (1900), and St. Louis (1904), Great Britain has by common consent taken the first place in the art section.

420. Other British sections have not done so well, have they?—They have not; and I think the situation has frequently been saved by the art section.

421. To what do you ascribe the comparative failure of the other British sections?—In my opinion it is due to the method of exhibiting individually and not collectively.

422. Do you think that collective exhibits could be worked here satisfactorily?—If the same amount of time and trouble were taken with various trades that is always taken in the art section; or with the chemical section at St. Louis, of which we have heard so much this afternoon, I think equally good displays might be made.

423. I think you know of some recommendations in regard to that which appear in the Report of the Royal Commission on the Paris Exhibition?—Yes. There is a very strong recommendation in that Report, which runs from the bottom of page 32 to the bottom of page 36. (See Appendix, No. I., p. 312.) It is signed by 118 members of the Royal Commission.

424. I understand you attach great importance to this newer system of collective exhibits?—I do.

425. And, if we do not have these improvements, you would sooner that we abstain from exhibiting?—Much rather.

426. What modification of the German system would you apply to the organisation of our British sections?—The modification I refer to would be by the addition of experts to help a permanent department, and selected chairmen of Chambers of Commerce should be induced to co-operate. I do not think that a permanent department should pay all the expenses of exhibitors. They might pay the cost of transport, space, and insurance, and leave to the exhibitor the cost of packing, and of his representative at the Exhibition.

427. Would you give to the permanent department and their expert advisers the right to say "You shall," or "You shall not exhibit such and such goods"; would you let them choose what should be exhibited?—I think that ought to be done.

428. Do you think that our manufacturers would stand that?—I think, if properly explained to them, they would see the advantage of exhibiting the special things required.

429. Do you agree with the last witness in wanting a small permanent department?—I think that would be most useful.

430. Do you think that we should save time in beginning the work when there was an exhibition?—I do. In my experience, as I have said before, we are in the habit of starting so late that there is always a rush to make up for lost time, and very often the time cannot be made up.

431. Would you form your committee of experts each time? You would not keep a permanent committee of experts, would you?—I think I would keep a permanent committee attached, but not necessarily employed.

432. (*Mr. Wilson Fox.*) It would have to be rather a large committee, would it not, if you are going to have on the committee men who know something about

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all British trades?—I do not mean a committee of that size. I think the chairmen of the leading chambers of commerce, who need not be numerous, might be part of that committee; otherwise there are not so many exhibition experts.

433. (*Chairman.*) Do you think that the chairmen of the leading chambers of commerce would represent the various industries?—Yes.

434. Of course you recognise that there are many towns where there are a good many industries, and that very often industries cut across and extend over several towns?—Yes. The committee would have to be carefully selected, and it would be worth while taking a great deal of trouble to associate the right men with a department of this sort.

435. Do you think you could find somebody who would know all the manufacturers in his own special branch?—I do.

436. You do not think there would be a great difficulty with that?—I think there would be difficulty, but it would be worth while trying. I think they would be found, and I also think they would be found willing to act.

437. To act as chairman of each collective exhibit?—To undertake the formation of a special collective exhibit of a special industry. Each of these gentlemen might be made responsible for securing a successful display in his own particular branch of industry.

438. He would act as a juror, I suppose?—Later on he would also have to act as a juror for this country on the international jury, the advantage being that he would be familiar, not only with all the exhibitors, but also with their exhibits. It is no uncommon thing now at international exhibitions for jurors to be brought in to act at the last moment. It has happened to me. I was asked to act at the Paris Exhibition as juror for fired decoration about one week before I had to act. That was a very short time in which to make myself familiar with the exhibits and to make the acquaintance of the exhibitors. If the system I suggest were adopted, the chairman of a Chamber of Commerce, who has formed the collective exhibit would be already thoroughly acquainted with all the separate exhibits, and he could press their merits upon the international jury much better than a late-comer would.

439. Is it not very difficult to get people of eminence in this country to give up so much time?—No. If they have adequate notice, jurors, as a rule, are willing to act. A great deal depends upon the distance. It was difficult to obtain jurors to go over to the St. Louis Exhibition, but it was very easy to find jurors for Paris.

440. The greatest difficulty in your scheme appears to me to be the getting of these chairmen of all the different sections who will afterwards act as jurors. It sounds like giving up a great deal of time on the part of very busy and important men?—Many of the Commissioners who now act also give up a great deal of time, and do so willingly.

441. (*Mr. Wilson Fox.*) On the question of space, which you will no doubt agree is an extremely important one, because the whole result of our exhibit might depend upon it, how is that arranged at the present time? Is it first come, first served, or how?—Take the case of the Paris Exhibition in 1900. The space that was allotted or offered to Great Britain was thought by the Foreign Office to be altogether inadequate, and Lord Salisbury made strong representations through the Foreign Office on the subject, and after a good deal of trouble we had additional space allotted to us.

442. Does the foreign country which holds the exhibition map out certain spaces, and then make the offer to the other countries, without those countries being heard in any way, or does it make an offer of space after a certain time has elapsed and a certain number of applications have been received from various countries?—They make the offer of space after they know that the country will participate. Unfortunately, they hear from Great Britain long after they have heard from other countries.

443. They wait to allot until they have heard from the respective countries?—They do.

444. Therefore it is, to some extent, a case of first come, first served?—Yes.

445. Do you say that Great Britain is late in the field, as a rule?—I do; very late. In addition to what I have said in reply to your previous question, I should like to add that, although they sometimes nominally allocate to Great Britain certain spaces in various sections, these are not always allotted, because the representatives of other countries are first in the field. They visit the exhibition at once, and often induce the exhibition authorities to give them space originally intended for us.

446. Because we have taken no steps?—Yes.

447. If we had some sort of permanent establishment here, however small it might be, that establishment could look after our interests in that respect, I presume?—I most certainly think so.

448. In asking for space to be ear-marked, I assume the country that does that has to be certain that it has a sufficient amount of money at its back to fill that particular space with exhibits?—They are not obliged to take it all up if they cannot fill it.

449. How long have they the option, as a rule, do you think, because I presume it would be very inconvenient for the country in which the exhibition is being held to have space in certain spots thrown back on their hands at different times?—The option would extend for a reasonable time; but they can always fill unallotted space themselves.

450. Do you think that because we have not had a proper amount of space or a proper position in recent exhibitions that has operated against British manufacturers and traders showing?—I think a great many have been very disappointed with the space allotted to them.

451. In the third paragraph of your *précis* you say: "I am of opinion that those who have participated intelligently in international exhibitions must have benefited, either directly or indirectly." What do you mean by participating intelligently?—As I explained to the Chairman, I mean that if they will take the trouble to be represented thoroughly, by sending an attractive exhibit and by sending a capable man to look after their interests they will benefit; but if they do not take that trouble, they will probably get nothing out of it.

452. Do they all send a man with their exhibit, or do two or three people join together, because probably the most expensive thing to an exhibitor connected with an exhibition is the sending of a man, say, to St. Louis?—An important firm will usually send its own representative, but there are exhibitors' agents, who will perhaps represent 20 or 30 firms.

453. Now, about the awards. I heard Sir Charles Watson say that the proportion of awards to exhibits is very large, and I should like to know whether those awards really are given on merit, or whether practically everybody who sends has an award—in plain English, what really is the value of those awards?—Different exhibitions have different methods of dealing with awards. At some exhibitions they allow every exhibitor to be eligible for an award, unless his exhibit is absolutely bad. At other exhibitions they decide that they will apportion a given number of awards only, and then the competition for them is very great.

454. I can conceive that a very generous system of awards would stop first-class men from exhibiting at all, because, if a first-class man is given an award, and at the same time a similar award is given to a fourth-class man, simply because he also has shown, I can conceive that that would operate against first-class firms showing?—They give only a small number of *grands prix* or gold medals, which are the chief awards that the firms compete for.

455. (*Chairman.*) People do not care much about the copper and silver medals, I presume?—No. If a large number of awards are given they are chiefly silver and bronze medals.

456. (*Mr. Wilson Fox.*) Do you take the view that a too generous distribution of awards might operate against the best men competing?—I do not think so, because their aim is always the *grand prix*.

457. That is their incentive?—Yes.

458. I only want to bring that out in order to ascertain whether the value of the award is really of any moment?—Of course, there are certain exhibitors who withhold their exhibits from competition, and who send them *hors concours*, but the majority compete keenly for *grands prix* and gold medals.

459. I take it that an art exhibit is on a different footing to a commercial exhibit?—It is.

460. An artist has no particular brand of picture; he cannot get a reputation for a brand of picture, and each picture stands on its own merits?—Yes.

461. Therefore, I take it that you must have a collective show of pictures, and you cannot send a sample of a particular artist's work in the same way that you can send a sample of mustard, say?—Art is always a collective exhibit.

462. Therefore, if it is always a collective exhibit, you must have somebody to organise it?—Yes.

463. That is necessary in order to make the proper selection of artists from an artistic point of view?—Yes.

464. I suppose the element of awards does not come into art in the same way?—I think it does.

465. Have you come to any conclusion yourself as to the benefit, apart from political reasons, which accrued to Great Britain from such an exhibition as the St. Louis Exhibition?—Yes. I think the very fair proportion of high awards allotted to British exhibitors was satisfactory.

466. Of awards, yes, but then we want to carry it further than awards. Do you think that orders are given afterwards to British exhibitors?—That is very difficult to answer. The orders are not always booked at the time. They very often come afterwards as the result of the firms having put in an appearance.

467. You are in favour, I understand, of the names of the exhibitors being given with the exhibit?—Yes.

468. You do not agree with Sir Herbert Jekyll, who took the contrary view the other day?—No, I do not. I think it is essential that the exhibitors' names should be given.

469. The point has been raised that some traders do not show, on account of the agency system of selling goods abroad. That does not obtain in a large number of trades, does it?—It only obtains in certain trades, such as the textile trades, I think.

470. There is a demand and a large demand, on the Continent and elsewhere abroad for the goods of particular manufacturers?—Yes, there is.

471. I am thinking of well-known manufacturers whose names I need not mention; their goods are asked for, and are well-known abroad?—Yes.

472. Therefore it is only in certain classes of trades, the textile trade is one, that the names of manufacturers are unknown?—Possibly. If steps were taken to induce the manfacturers to exhibit, or to obtain permission from the agents for their manufacturers to exhibit, I think they would do so; but the effort has never been made to my knowledge.

473. That is what my next question was going to be—this system of collective exhibits was only tried at the last international exhibition, was it not?—That is so. At the Paris Exhibition there were only two collective exhibits—the worsted manufacturers of Bradford and the Redditch Needle Manufacturing Company. The system was tried on a larger scale at the St. Louis Exhibition with a certain amount of success, and I am of opinion that if trouble were taken in other directions it would meet with still greater success.

474. I take it you are not disposed, having regard to the St. Louis experience, to say that, without further trial, the system has failed?—No, I think an extended trial ought to be made.

475. Sir Charles Watson showed us that a very small proportion of the British catalogue was devoted to manufacturing exhibits, and in view of that it might be argued that the manufacturing portion of the British exhibit was a failure?—Quite so.

476. But you would not say on the St. Louis precedent that a sufficiently fair trial has been given to the collective system to warrant people coming to the conclusion that the collective system of showing goods at a foreign exhibition is a failure?—No. I think that the issue of thousands of circulars inviting firms to participate in a collective exhibit is merely a waste of time, because they do not quite know what collective exhibits are. If they have not had the system fully explained to them, and if they have not been shown the advantages of it, favourable answers can hardly be reasonably expected.

477. Do you think that if you sent a persuasive gentleman round to the Chambers of Commerce, who held meetings and gave explanations to them, that would be a good system?—I do. Whereas I do not think they are disposed to attend to circulars from a Secretary of a Commission inviting them to participate, I think they would listen seriously to an invitation emanating from a permanent department or a Government Department after an explanation of the system.

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478. And what other countries are doing?—Yes.

479. Such steps as those, which have not yet been taken, you think are worth a trial?—I do.

480. (*Sir Swire Smith.*) I think you have made it very clear in your evidence that the Art Sections in the exhibitions to which you have referred, have been successful very largely because of the collective display?—Yes.

481. The method by which those pictures were selected seems to me to be one of immense importance, and I assume that there would be a committee of experts, who would select the pictures and would make sure that there was no rubbish accepted. If a similar method were adopted with regard to the manufactures, and if every department of industry were represented among the jurors by experts, would you be of opinion that a result equally satisfactory to that which you have obtained in art would be obtained in manufactures?—Yes, I think it would be equally satisfactory.

482. The formation of such a committee to make the selection would be your main point in securing the best possible exhibits of manufacturers?—Yes, I may tell you briefly that in the case of the Art Section a carefully selected committee not only frames the list of the exhibitors to be invited to contribute works of art, but actually selects the works of art.

483. And that, you think, is just as necessary with regard to manufactures?—Yes, if you wish to score a success.

484. Is it your opinion that the general reputation of this country has been very much advanced in other countries with regard to art and artistic productions by the exhibitions of art, which we have seen from time to time?—Yes, I do think so.

485. And that the only way of thoroughly restoring our reputation with regard to manufactures is to adopt a similar course there?—Yes.

486. (*Mr. Malcolm Ramsay.*) You were speaking about the failure of British firms, owing to the bad or indifferent agents that they employed; did all the exhibitors in the collective exhibits at St. Louis employ their own agents?—Some did; others were represented by Mr. Arthur Day, the Exhibitors' agent.

487. Did they have to pay for his services?—Yes.

488. I understood from Sir Charles Watson's evidence that the manufacturers paid nothing once the goods had left their doors in this country, but it seems that they did have to pay something, viz., either the whole or a part of a man's salary out there to represent them?—Yes.

489. In your *précis* you say you do not think that better results could have been obtained by private enterprise; are you referring there to results from the general point of view, or to the particular results which may have been obtained by individual traders?—I was referring to both. I then had in my mind the case of the Liège Exhibition, where I think no particular advantage has accrued to this country—rather the reverse—by its being thought that Great Britain had participated officially, whereas the British Section was promoted by private enterprise, and a rather poor show was the result.

490. You were also thinking of the individual point of view; namely, that the trader who wanted to advertise his goods got a better result out of joining in the exhibition than he would have obtained by pursuing his own methods and employing his own traveller?—Yes.

491. Is it the case that in Germany all the expenses of the preliminary local competitions are paid by the Government, or are they paid locally?—I am afraid I cannot answer that question definitely. I think that those who are accepted have their expenses paid for them, and that those who are rejected have to pay their own expenses.

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492. In any case, I presume the expenses would not be very great?—No, they would not.

493. As regards the French method; do I understand rightly that the firms that join the *Société Francaise des Expositions à l'Etranger* subscribe, and that the Government only pays, therefore, part of the expenses of individual firms?—Their subscription is only a nominal thing, I think. They pay for their space, but the Government makes a grant independently to pay for the decoration of the section and for other expenses, entertaining being one of them.

494. Then the Government grant to the Society is a very substantial one?—It is a substantial one. Their beautiful show cases and all the things necessary to equip their sections are transferred from one exhibition to another, and are very costly and very artistic.

495. You are of opinion that the method of collective exhibits might be a success in future if trouble were taken. Do you mean if trouble were taken by the organising committees, or if it were taken by the traders?—I mean if trouble were taken either by the Commission or by the organising committees. I do not think that hitherto a sufficient amount of trouble has been taken to persuade manufacturers to exhibit collectively.

496. I suppose you would say that the manufacturers on their side had not taken particular trouble to appreciate the method?—That is so. I even think that circulars received by secretaries of Chambers of Commerce would probably be thrown on one side. It would only add to a secretary's work if his chamber took up the matter at all; and, as I have said before, I think the efforts to obtain the co-operation of Chambers of Commerce have hitherto been very slight.

497. With regard to the financial aspect, do you share the view that Sir Charles Watson expressed, namely, that unless we go in largely it is better not to participate at all?—Yes, I quite agree with him there.

498. Looking, for instance, at the list of grants that we have given, do you think that it would have been better not to have given anything for the exhibitions at Milan and Christchurch this year, and not to have participated in them?—I should not put New Zealand in the same category as Milan.

499. Of course it is not in the same category as Milan?—I hear that even at Milan out of its slender grant there is a surplus. Going back ten years, the Committee of the London Chamber of Commerce was asked by the Foreign Office to undertake the exhibit at Brussels, and they were given £4,000; they also raised a guarantee fund which amounted to about £6,000, but the guarantors were not called upon. The space was sold, and even out of the grant of £4,000 they handed back something to the Government—about £1,000, I believe.

500. It was about £700, was it not?—It was, I think, over £800. In that Art was not included. I remember we had to approach the Chancellor of the Exchequer separately, and he gave us a grant of £1,500.

501. That was a supplementary grant?—Yes. We had £300 in addition from the London Chamber of Commerce, and Sir Edward Poynter and I had to find the balance. But it was a most satisfactory exhibit.

502. Could you tell me whether in your opinion the Government grants that have been given in the past have been spent to the best advantage?—I think that the expenditure is open to a great deal of criticism. In the first place, I think that we have spent too much on our pavilions as compared with those of other nations. We are in the habit of building solid structures, capable of lasting for years, whereas other countries merely erect pavilions to last a couple of years, not more. What I am now saying of Paris and St. Louis holds good also for Chicago and Philadelphia, where the cost of the pavilions made very large holes indeed in the total amount of the grant. At Paris the grant was £125,000, and nearly £30,000 of that amount was eventually returned to the Treasury, consequently they spent just under £96,000, and of that amount about £23,000 was spent upon the pavilion, leaving only £73,000 for all other expenditure. At the end of the six months, when the pavilion was no longer needed, it was sold for about £200. It was a steel structure, splendidly built, unnecessarily substantial, in my opinion, and the contractors took it back at a cost of £200. It is true that no charge was made for removing it. As an asset it merely figured in the accounts for £200. At the St. Louis Exhibition the pavilion and its garden together cost close upon £32,000. The grant was £150,000, and I have no doubt that a substantial sum, when the Commission is wound up, will be returned to the Treasury; but assuming that the Royal Commission for the St. Louis Exhibition spend £125,000, the pavilion costing £36,000, that leaves £89,000 for other expenses, all told.

503. (*Mr. Wilson Fox.*) Have you got any figures showing what foreign nations spend upon their pavilions?—I cannot tell you officially. At the St. Louis Exhibition Germany spent on their pavilion, which was a copy of the Palace at Charlottenburg, a rather substantial sum, though I do not think it ran into anything like the amount that we spent—£32,000. With that exception, all the other pavilions, I should say, did not cost anything like half of the amount that we are accustomed to spend on our pavilions. Arising out of that, I would like to say that if Great Britain erected pavilions of a less substantial nature which would answer the purpose, they would have a very large saving under that head. If that saving, and the surplus which it seems to be the custom to hand back to the Treasury, were added together and spent on collective exhibits (which are all important), a vast amount of good might be done for manufacturers, without any additional financial burden whatever being placed upon the Government. It would then be unnecessary to go to the Government for larger grants than £150,000.

504. I do not quite understand about the pavilions. Is the pavilion the place where the British exhibits are shown?—No; it is the headquarters of the Commission, as it were.

505. Is it purely used for entertaining?—No, but entertaining also takes place there.

506. (*Mr. Malcolm Ramsay.*) The offices are there too, are they not?—Yes.

507. (*Chairman.*) It is also a sort of advertisement of the country generally, is it not?—Yes.

508. At Paris was it not an old manor house?—At Paris it was a copy of an old Jacobean house, and it was a most attractive feature in the Exhibition. It was beautifully decorated inside, three rooms being the exhibits of separate firms. A number of pictures by old masters were hung in the rooms, so that altogether it was a most attractive place. In referring to these pavilions as being in my opinion unnecessarily expensive, I refer really to the building only, because the decoration and the furnishing of the rooms are usually exhibits.

509. (*Mr. Malcolm Ramsay.*) Do I rightly understand your view to be that, under improved organisation, and particularly with a system of collective exhibits, a grant of some £150,000 would be sufficient for a first-class exhibition?—I am of that opinion.

510. You would not like to be committed to that figure, perhaps, but you think it would come to something like that?—I think £150,000, properly spent, should do all that is necessary at a very large exhibition.

511. If the Government were not forced by reasons of policy into joining in large international exhibitions, and wished to spend money merely for the advancement of trade, do you think that participation in exhibitions would be the best way of securing their end?—Yes, I do.

512. Have you made any estimate of what the permanent nucleus, I mean the permanent office, would cost?—No, I have not, but I know that a similar department in Paris for the art display incurs an expenditure of £600 a year. That is somewhat increased when an exhibition is in active progress or has to be promoted.

513. (*Chairman.*) But it would not be quite the same thing, would it? You would want something more expensive, would you not, for general industries?—Yes; but taking that as the cost of the art section at Paris, I would assume that it would not cost much more for industrial purposes.

514. (*Mr. Harris.*) Do you not think that one effect of a permanent department would be to produce a desire to participate in exhibitions, without any reference to the advantage to trade, but simply as exhibi-

tions?—It might; but the department might be used for other purposes, and the staff, however modest, might be otherwise employed when no exhibition is in progress.

515. And that would get rid of the idea that they simply existed to find out and create exhibitions?—I think it would. It is not generally known that it takes quite as long to promote an exhibition as it takes the exhibition to run; and it takes quite as long, or longer, to wind it up; so that, as a matter of fact, the interval between the closing of one exhibition and the opening of another in all probability would not be very great.

516. I understand that you have expressed an opinion that British industrial sections were usually more like a bazaar than an organised and artistic exhibition; do you not think, from the point of view of trade, that a bazaar after all is the more attractive?—It may be so, but when I made that remark I had the inartistic effect of the British section in my mind.

517. The trader does not look at the artistic effect necessarily, does he?—The British industrial sections at the Brussels Exhibition and at the Paris Exhibition were most inartistic. There were all sorts and sizes of show cases, and there was no decorative effect whatever surrounding them. Taking them in comparison with the French and the German sections, they really looked like second-rate bazaars.

518. With the result, do you think, that people rather passed it on one side?—I think so. I think people were attracted by the more artistic sections of other countries.

519. You have been to a great many exhibitions, and you heard what Sir Charles Watson said about distance; have you formed any opinion of the effect of distance on the mind of exhibitors or would-be exhibitors?—As regards the industrial sections, I have no doubt that what Sir Charles Watson said is correct. I think that exhibitors do object to sending very great distances, such as to St. Louis. As regards New Zealand, I have not heard an adverse remark about the distance.

520. (*Mr. Algernon Law.*) How are the awards apportioned as regards countries, by the number of exhibits, or is there a certain amount of scrambling amongst the various commissions to obtain a large amount of awards for their own countries?—There is a scramble for awards. Speaking as a juror, I may say that I have found other jurors fighting for their countries more than for the merit of the exhibits. I tried to get as many medals as I possibly could for England, apart from the merit of the exhibits I had to judge.

521. (*Chairman.*) Has not your brother also had a similar experience?—I think so, in the art section.

522. (*Mr. Algernon Law.*) Do you think that exhibits of manufactures are more difficult to organise than those of art, which are usually compact, and therefore it is more easy to get art exhibits than exhibits of large machinery, and so forth?—It is occasionally difficult to get the things one requires in the Art Section.

523. In the case of St. Louis probably time had something to do with it, and a manufacturer might have said, "If you had given me two years instead of one I might have done something for you"?—I think time and distance had a good deal to do with it.

524. I do not know whether you have anything more to tell us about the cost of pavilions?—I do not think I had quite finished as regards the pavilion at the St. Louis Exhibition. At the termination of the exhibition, when the Commissioner there tried to sell the building, it was found that he could not do so, because it stood on land belonging to the St. Louis University, and they claimed it.

525. (*Mr. Wilson Fox.*) They did not tell them that before they built it, did they?—No. It was the only pavilion standing on St. Louis University property. We then had permission from the Foreign Office, since the building was very much wanted, to present it, but that was not permitted by the Treasury. Consequently, we had to accept their insignificant offer of, I think, about £200 for the whole building as it stood. The exhibitors removed the things that belonged to them, but the building, together with a vast amount of decoration, passed into the hands of the St. Louis University for that sum.

526. (*Mr. Algernon Law.*) From what class were the guarantors of the British participation in Brussels drawn? Were they men of wealth who took a general interest in exhibitions?—No.

527. Or were they manufacturers or what?—I think they were chiefly merchants in the City of London.

528. Do you attribute the comparative failure of this country in international exhibitions to defective organisation rather than to inferior workmanship or class of goods?—I attribute it chiefly to the bad start we always have to make—the late start.

529. What particular class of exhibits have gained most by exhibiting, apart from art, which apparently gained a good deal? Is there any special class?—I am afraid I cannot tell you that.

530. If a country sends its best, collected in a small space, to an exhibition, does that not give foreigners a better chance of copying than if the goods are spread all over a large city or country? It has been mentioned, as you know, that people are afraid to exhibit on account of getting their goods copied?—Perhaps it does give them an extra opportunity, but they already can purchase and copy anything they wish of British manufacture.

531. But it would not be before their eyes, and they would have to go and look for it; they would find it by going to the Exhibition?—That would be so.

532. In your *précis* you say "By the time the Foreign Office has conferred with the Treasury, the Board of Trade, and the Home Office, and arrived at its decision, other countries have not only sent in their adhesion, but have also secured the best spaces." I think that is rather a Treasury decision, or a decision of the Government as a whole, than a Foreign Office decision, is it not?—Yes, I think it must be a Treasury decision.

533. (*Mr. Wilson Fox.*) And it has nothing to do with the Board of Trade really?—No.

534. You have a great experience in these things, and therefore I should like to get on the notes what is your idea of the organisation required for an exhibition. I understand you are in favour of some permanent nucleus?—Yes, I am.

535. Then I understand you are in favour of a committee with experts on it?—Yes.

536. When the Treasury find the money for an exhibition, are you then in favour of a Royal Commission, or who is to be the controlling authority over the committee and over the permanent staff, whatever it may be?—I should say that the controlling authority ought to be a Department of the Board of Trade.

537. A Department of the Board of Trade, do you say?—Yes; I think this permanent office should be an office of the Board of Trade.

538. Do you mean to run the Commission itself? When the Treasury has found the money, and you are about to start getting the British exhibits, do you think that the permanent Department ought to do all the work, putting up the pavilion, and doing the entertaining, and so on?—I think the permanent Department, with the officials of the Board of Trade, should have the controlling voice and should appoint the committee, including a few exhibition experts, and including a selected number of chairmen of Chambers of Commerce to assist.

539. But no Royal Commission, then?—I do not think it would be necessary to have a Royal Commission.

540. (*Chairman.*) Does not a Royal Commission add dignity and attraction?—Perhaps a few ornamental names would be useful, but I think they ought to be few.

541. (*Mr. Wilson Fox.*) Do you think that the people you would have to come in contact with, the people belonging to the art world and the mercantile world, would care to have a Government Department rather than a Royal Commission running the Exhibition on strictly official lines?—I do not think they would mind it at all.

542. I do not think, if you put it to me, that the entertaining would be so lavish under a Government Department, for instance?—Probably.

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543. One more question, which I think is of some importance, in regard to the permanent staff, whatever it might be, and however small or large. Would you contemplate that the man who was in charge of that permanent staff should be secretary of the larger organisation, whatever it may be, either under the control of a Royal Commission or of a Government Department, which would be required when the exhibition came into being? Here is a man who would be trained for such work and certainly acquiring knowledge, and his salary would very much depend upon what view you took about making him the secretary to the exhibition. Expense is something to be considered in regard to the point we are on. Is he to be just a mere clerk, or is he to be a man who, when the time comes, you would put into a position of very considerable responsibility? If so, you would have to give him a large salary?—I think he ought to be a man who would be eventually appointed Commissioner-General.

544. (*Mr. Malcolm Ramsay.*) Like the secretary of the Commission?—Yes.

545. (*Chairman.*) He should be the man in charge, whatever he is called?—Yes.

546. (*Mr. Wilson Fox.*) My point is that that would very much increase the intermediate expenses between the exhibitions, although I do not say it would not save money in the end?—Probably, but I think he would be most usefully employed as the Commissioner-General afterwards.

547. (*Mr. Malcolm Ramsay.*) I suppose you would have to give him a salary of four figures?—Possibly.

THIRD DAY.

Friday, 30th November 1906.

PRESENT :

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Swire Smith.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Sir Henry Trueman Wood, called and examined.

Sir H. T. Wood. 30 Nov. 1906.

548. (*Chairman.*) I think you are Secretary of the Society of Arts?—Yes.

549. You have been connected with many international exhibitions, have you not?—Yes. My first connection with exhibitions was in 1873, with the series of exhibitions organised at South Kensington by Sir Henry Cole. I had a little to do with the Paris Exhibition of 1878, when I edited the Artisan Reports upon it. My chief early experience of exhibitions was with the Inventions, Health, and Colonial Exhibitions. Then I was the secretary and commissioner for the private committee which organised the Exhibition of 1889 in Paris, and also secretary of the Royal Commission for the Exhibition of Chicago.

550. I understand you think that there are two distinct classes of exhibitions?—Yes. There are first of all the great international exhibitions of Paris (1855, 1867, 1878, 1889, 1900), Vienna (1865 and 1873), Philadelphia (1876), Chicago (1893), and St. Louis (1904). There are also a vast number of smaller exhibitions, such as those at various dates at Brussels, Amsterdam, Moscow, Berlin, Antwerp, Barcelona, Milan, etc. Besides these again are the special exhibitions, Electricity, Mining, Life-saving, Fishing, etc. While the country has taken part in the big international exhibitions, it has always, to a very large extent, ignored the smaller exhibitions—many of which offer rather important opportunities, I think, of developing special branches of British trade.

551. Do you mean special branches of special industries?—I mean branches in connection with the special industries of each country. Take, as an instance, the Barcelona Exhibition of 1888. They had a very fine exhibition of textile machinery from this country, one of the principal exhibitors being Messrs. Platt, of Oldham. I spoke to one of their partners about it, and asked him why he would not exhibit in Paris in 1889. He said, as well as my memory serves me, that he had exhibited in 1878 in Paris to oblige Sir Philip Owen, and that he had got no good by it, but that there was a very large textile industry in Catalonia which he hoped to reach through the Barcelona Exhibition, and that he was doing a very good business there.

552. Was their business in exporting textile machinery increased by exhibiting their textile machinery at Barcelona, did he think?—They are among the largest makers of textile machinery, as you know; and he thought, by exhibiting on the spot—I believe he not only thought, but he found—that he was doing good business, whereas, by exhibiting in a large general exhibition like that of Paris, he did not think that his firm would get much business.

553. Because the users of his particular machinery would not see his exhibits at Paris?—They would not go there.

554. I understand you are of opinion that international exhibitions have entirely changed their character. What do you consider has been the change in international exhibitions recently?—There has been a very obvious change. The Exhibitions of 1851 and 1862, and the other earlier exhibitions, were purely exhibitions of manufactures, of science and of art, and there were really no amusements connected with them. The exhibits were the principal, almost the sole attraction. Now the buildings form the essential feature and the amusements the main attraction. In 1851 there were almost no refreshments—indeed, I think the main provision of the refreshment contractor was an enormous number of penny buns, that is stated in the Report. Now the catering is about the most important department and the receipts from restaurants one of the chief sources of revenue. Many of the late exhibitions were really what they have got to be called —World's Fairs.

555. I suppose that is because you cannot attract people simply by the exhibits?—I do not know what the reason of it is. The change developed, I think, from a feeling of rivalry. They started the idea first of all in Paris of making a very magnificent show, and people caught more and more on to the idea. You will remember that from 1873 to 1874 Sir Henry Cole organised some minor international exhibitions at South Kensington. They were really very good exhibitions, but there was no provision made for entertainment at them, and in 1874 they stopped. It was originally proposed that the series should be carried on for ten years.

556. (*Sir Isidore Spielmann.*) Were they international?—They were nominally international, though they were not really international.

557. Did other countries not participate in them?—Only to a very small extent. However, they were called international exhibitions. Then exhibitions of a very similar character were organised by Sir Philip Cunliffe Owen ten years later—the Fisheries, Health, Inventions, and Colonial Exhibitions—and they were a very great success. I think it was that which first started the idea of combining a sort of respectable Vauxhall or Cremorne with an international exhibition. The French people developed this to a very large extent in Paris in 1878, and more still in 1889, and Chicago carried it on to a yet larger extent in 1893, until at last an exhibition got to be looked upon as a place of entertainment, and not as a place for the development of trade and industry.

558. In your *précis* you say that you do not think there is much business done in various industries at an exhibition?—There is a certain amount of business, but I do not think it is a very large amount.

559. But there is business done in what you call the Applied Art Classes?—Yes. Sales direct to private individuals, mostly retail business.

560. What do you mean by the Applied Art Classes?—All those industries which are associated with ornamental design, glass, pottery, furniture, etc. I think that the British trade in ornamental pottery is entirely the growth of exhibitions It was founded at the Exhibition of 1851, and it has been fostered by other exhibitions. I believe that particular trade has made very large profits indeed by exhibitions. One proof of it is that the manufacturers of that class of goods are always ready to exhibit. They exhibited freely in Paris in 1889, in Chicago, and I believe in later exhibitions.

561. Did they exhibit at St. Louis?—I am afraid I cannot tell you anything about St. Louis. I think I had better say that the Committee must not look to me for any information beyond 1893. What I have to say is all more or less ancient history, for really I have had nothing to do with exhibitions since then.

562. Can you give any other instances except that of the pottery?—I should like to mention what I think is an interesting fact. I think Sir Henry Doulton himself attributed the whole growth of Doulton Ware and the very large business which was founded on it to a small exhibit at Vienna.

563. In what year was that?—It was at the Vienna Exhibition which was held in 1873. Of course, manufacturers of pottery and things of that sort can sell their goods to a large extent at foreign exhibitions, and I think the same applies to a large extent to British furniture makers. I think that they have done very well in exhibitions. The British carriage makers exhibited very largely in Paris in 1878, and I believe they did a very good business for some years; but that it afterwards dropped off. My own impression—I can only give it as an impression—is that the engineering trades, the makers of agricultural machinery, the makers of steam engines and other motive-power engines, and the makers of textile machinery, have suffered rather than otherwise from exhibitions. I think that the Exhibition of 1851 brought a lot of foreigners over here who found out what we were doing, and, to a large extent, copied the machinery of our makers. All exhibitors complain a good deal about their goods being copied. In the case of ornamental things I do not think that that is justifiable, because any rival maker has only to go into Regent-street, and he can see the same goods in the shop windows there that he can at an exhibition. But in the case of machinery that is not so—they do not have the same easy opportunity of inspecting and examining and copying. And I think that the great complaint which exhibitors make that their goods are copied in exhibitions is, as regards machinery, entirely justifiable.

564. That is in spite of the Patent Laws?—In spite of the Patent Laws, and in spite of the prohibitions against copying and photography and all the rest of it.

565. They cannot be imitations exactly, because surely the Patent Laws would interfere?—Patents can be evaded.

566. We know that; we have heard a good deal about patents elsewhere?—The foreigner gets the idea, and he develops it in a slightly different way in spite of the patents.

567. You do not mention the textile industries as having been either helped or hurt by exhibitions; have you any opinion about that?—No. I am afraid I do not know anything about that; I have not formed any opinion about it.

568. On the whole, you appear to think that exhibitions have been beneficial to trade?—I think foreign countries have profited a great deal more by exhibitions than Great Britain.

569. Do you think that we have profited at all?—I think that is a most difficult question to answer. Whether trade on the whole has benefited or not by exhibitions, I really cannot say; I do not know.

570. But individual firms have profited?—Certainly.

571. More by exhibiting than by advertising in the ordinary way?—I think so. If a man wants to advertise he can get more advertisement by spending his money upon an exhibition installation than he can by spending it upon newspapers and hoardings.

572. Coming to the general question, do you think that as long as exhibitions are held we must take part in them?—I think that is undeniable. I think there is no possible question about it. You cannot have a big exhibition held in Paris, and England standing outside it. It may or may not be a good thing to have an exhibition and to exhibit at it, but there is no question whatever that if there is an exhibition and your rivals are showing at it, you have got to show too.

573. It would damage us more in prestige not to show, than to show and let it advantage other countries more than it would advantage us?—Certainly it would. That was illustrated at the Paris Exhibition of 1889. As you will remember, the Government refused to take part in that Exhibition, and a private committee was formed. Before that committee was formed there was tremendous grumbling amongst the various manufacturers at the idea of Great Britain not taking part in it. That showed the feeling of the manufacturers on the whole.

574. There were political reasons, then, I think?—Yes. The reasons were quite obvious; they were known at the time.

575. Now, we come to the question of collective exhibits, on which you have strong opinions, I think?—Yes, I have got very strong opinions about them and I have had for a very long time. My experience has been that it was absolutely impossible to induce British exhibitors to join in collective exhibits. The best example I know of that was at Chicago. We had a large number of exhibitors of pottery at Chicago, and I was very anxious that they should all join together and make one collective exhibit—in fact I had arranged a sort of court, and had a design for it; it was a kind of pavilion. Most of the pottery exhibitors had agreed to this and had agreed to pay their own share of this general pavilion, and to have inside it their own private installations. It was to be divided into various portions, and each exhibitor was to have his own share, and to instal his goods in it. But one of the largest exhibitors of all said, "If you are going to do this, I will not exhibit; I will exhibit on my own account or not at all."

576. Were the names to be put on the separate exhibits?—It was to be a joint collective exhibit. It was to be a pavilion of British pottery in which each exhibitor has his own compartment.

577. Was his name to be on his compartment?—Yes, certainly. It was to be a united exhibit, perhaps, rather than a collective exhibit to which everybody contributed, all the goods being mixed up together.

578. You are aware, of course, that in France and Germany the system of collective exhibits has been adopted for some years?—In France and Germany that system has been adopted to a very large extent, so far as my experience goes. The first I knew of it, and I think the first time it was worked on a large scale was in Paris in 1889. That was an instance of manufacturers exhibiting in their own country, and not in a foreign country. In that case the various French sections were all managed by special committees, each committee arranging with the exhibitors, doing the decoration of their court, and receiving the selected exhibits. The expenses were divided amongst the various exhibitors. The result was that there was a homogeneous exhibition of the various classes of French industry. They were all arranged together, and in

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harmony. When they exhibited in Chicago they did precisely the same thing, and so did Germany. In Chicago I know, as regards Germany at all events, that the various exhibitors delivered their goods to some central organisation in the country, but I do not know what it was.

579. Some central organisation in Germany, do you mean?—Yes. They were then sent out, and the whole of the installation was done by the German section. It was done on a very elaborate and costly scale. Large and gorgeous pavilions were built in which these goods were installed. How far an individual manufacturer's goods were kept apart and how far his name was put forward, I do not remember; but I think the practice varied in various cases. In some instances the exhibitor had practically a separate installation within the collective exhibit. In other cases, I think, his goods were merely mixed up and shown, of course, with his name attached to them; but the practice varied, to the best of my memory.

580. But you have not personally had to do with the system, and you do not know exactly how the exhibits were selected by the Government?—No; I do not.

581. You are not sure whether there was actual selection, and whether certain goods were rejected or not?—There was some form of selection, but the details of it I do not know. I only know what was told to me. I asked the German Commissioner at the time, and got from him a good deal about it. I was anxious to get the information, because I wanted to do the same thing for this country, but I never could succeed.

582. Have you formed any idea as to why it is that the people of this country are all of a different opinion to those in Germany as to the advantage of a collective exhibit?—I think it is merely the nature of the people. They are jealous of one another. I think the nature of us English people is to work for ourselves and be independent. I think that is the only reason.

583. In Germany they are better drilled, are they not?—Yes, and they are more used to submit to Government organisation, and they are less independent—you can put it in that way.

584. You have not had much practical experience since 1893, I think you said?—Since 1893 I have had nothing to do with exhibitions.

585. So you do not know about St. Louis?—I do not, except that I have heard of it and have taken interest in the subject. I know that in St. Louis the collective exhibit system was, in certain cases, successfully carried out.

586. All you know is that you had very great difficulties in Chicago in getting collective exhibits?—Yes. The same in Paris in 1889. I have mentioned in my *précis* one or two very definite efforts which were made to get special collective exhibits. In Paris the Society of Agricultural Engineers undertook to make a collective exhibit, but that broke down. The Institute of Carriage Builders tried to make a similar exhibit, and that failed. In Chicago the Institution of Electrical Engineers tried to make a collective exhibit of electrical apparatus, but they could not carry it out.

587. In Paris you say that the cost incurred by the contributors of a collective exhibit did not vary much from the cost incurred by separate exhibitors—was that so?—That was so. I found that to be the case at the time.

588. That is a very curious state of affairs?—Yes, it is; but I am quite clear about it. I made the inquiry, and I found that the cost to the French exhibitors of their contributions to the collective exhibit, and their share of the decorations, did not vary much from what our own exhibitors had paid. But that does not really apply to a foreign exhibition, in which the Government pays a much larger share. At Paris in 1889 the French exhibitors bore the whole cost of the decoration of their courts, although they contributed to a collective exhibit. In Chicago the French and the German Commissions paid the whole cost of the installation of the goods, and of the decoration of the courts.

589. Then there is the question of the effect of the exhibition in opening new markets. Take Chicago, for instance, which you are very familiar with. Do you think that there was a good effect produced on the visitors from South America, which is an important market now?—I think both in Paris and in Chicago there was a good deal of business started with South America. I know that I was told in Paris that that was the effect. At the Paris Exhibition of 1889 there were very large exhibits from South America, some of the South American Governments subscribing very large sums for exhibition purposes, and a good many South Americans coming over to Paris. I gathered at the time that their object was to attract French capital. I was told that that had led to a good deal of business coming to French houses from South America, and I know it was anticipated at Chicago that a good deal of business would be done in South America; but I do not know whether that was the case or not.

590. Are you aware that the American manufacturers still complain that they do not do nearly as much business with South America as they think they ought?—That I do not know.

591. And that we still continue to do more business in South America than they think is fair, considering they are in North America?—I know we do a large business there.

592. Now, I think, we come to the question of the machinery for organising an exhibition. I understand that you do not believe much in a Royal Commission being the ideal machinery?—No, I do not. I think a Royal Commission is a singularly cumbrous instrument for the purpose, and most unsuited for the work. A Royal Commission is a very bad executive instrument. The first Royal Commission for an exhibition was really a one-man Commission—it was Sir Henry Cole, and nobody else.

593. When was that?—That was for the Paris Exhibition of 1855. The later Royal Commissions were under the presidency of His Majesty, who was then Prince of Wales, and the secretary was Sir Philip Cunliffe Owen. I think a combination of that sort was an admirable instrument, because His Royal Highness took an active and energetic interest in the work, he knew all about it, and the Commission had all the benefit of his great influence, and also his very considerable business powers. At the same time, they had the advantage of the admirable organisation of Sir Philip Cunliffe Owen, who was an extremely able and excellent organiser. I think a Royal Commission which consisted practically of the Prince of Wales and Sir Philip Owen was as good an instrument for working an exhibition as you could have.

594. Did that Commission meet often?—The Commission met very seldom; but the Commission practically, for all executive purposes, consisted of the President of the Commission and the Secretary, the other members being ornamental. No Committee, least of all a Royal Commission, should undertake to carry out executive work, and for that reason a large Commission seems to me to be a most hopeless instrument for carrying out a very difficult piece of work, such as the organisation of an exhibition is.

595. But I suppose it attracted exhibitors because there was a dignity about it?—Of course, a Royal Commission inspires confidence, and for that purpose it is very valuable. What is really wanted is some permanent organisation in the country which will deal with all exhibitions.

596. Have you seen something of the organisation of foreign countries at those exhibitions that you have been connected with?—Yes, I saw a good deal of it.

597. What has their organisation usually been?—I think they have always appointed one Commissioner, and made him responsible for the work, as far as I know. I think that is the universal practice.

598. I suppose that would be an office of some dignity?—Of course, he was a person of a certain importance, but I do not know that it was an office of very great dignity. He was an important Government official.

599. Was he a man who could do the work himself?—He was the man who actually did the work.

600. He was not an honorary person?—Not at all as a rule; indeed, I do not remember any case in which he was. The foreign Commissioner really was the man who did the work, and was responsible for it.

601. You seem rather inclined to favour a sort of

commission on which you would have one of the Royal family at the head with a very capable commissioner under him?—No; I think that was an accidental circumstance which would not be likely to be repeated. I should certainly be in favour of the appointment of some definite capable man as the commissioner.

602. Would you have that commissioner appointed for each exhibition, or would you have him a permanent officer?—If it were possible for you to have a permanent officer, I should be inclined to think that would be better. I think there certainly ought to be a permanent department, and the head of that department would be a very natural man to act as the commissioner for the more important exhibitions.

603. Do you think you would pay him a large salary?—I suppose a man of that sort would get the kind of salary that the permanent head of a Government department would get.

604. A department, or a branch of a department, do you mean?—A branch of a department.

605. What department of the Government would you naturally assign this permanent department to?—I should imagine that it ought to be distinctly a department of the Board of Trade.

606. You are aware, I dare say, that the conduct of exhibitions has been altered in that respect?—It used to be under the Science and Art Department, I know.

607. I think before that, 40 years ago, it was in the hands of the Board of Trade. Have you any knowledge of that?—I never knew of the Board of Trade having anything to do with the organisation of an important exhibition.

608. But now you think the Board of Trade would be the most suitable department to connect this organisation with?—The Board of Trade would seem to me to be the only possible department for it. I can see no reason why the Board of Education, which is the present title of the old Science and Art Department, should have anything to do with exhibitions. It was merely the fact that the South Kensington Museum was under the Science and Art Department, and its association with the 1891 Exhibition that, I think, led to exhibitions being put under the same Department.

609. Of course the Board of Trade have very little or no knowledge as regards the Art part of it?—That would be so; but then the ostensible object of an exhibition is not to deal with matters of Art, if Sir Isidore Spielmann will forgive my saying so, but with matters of industry and commerce.

610. Why do you wish to have a permanent department?—Every time that an exhibition is held, the whole thing is treated as if an exhibition had never been held before. A fresh commission is appointed—or at least that was the practice—and somebody is appointed as its secretary, and he at once starts to get all the information, just as if the whole thing was not really cut and dried. There is no place existing where that information has been collected.

611. I suppose the secretary comes to you more than to anybody else for old exhibition records?—The Society of Arts has got, I believe, the largest collection of exhibition literature, and I was very glad to be able to place a portion of it at the disposal of your secretary, who has borrowed a large number of books. There is also a very full collection of Exhibition Reports, etc., in the library of the Victoria and Albert Museum. Probably they have a good deal which we have not. A place of permanent record is very much wanted, and that, of course, a department would supply. Now whenever the question of an exhibition, especially a minor exhibition, comes up, it is discussed or talked about whether the country should take part in it; but there is no tribunal, or no person rather, who can deal with such a matter with authority. Naturally, if there was a permanent department the question would go to that department, and they would decide almost at once what the character of the exhibition was, whether it was worth while taking part in it, and whether a grant ought to be made, and if so, how much.

612. Would you advise our taking part in a big town or city exhibition if it was international—a big provincial exhibiton you may call it, not one held in the capital, but one like the Liège Exhibition, or the Antwerp Exhibition?—That is exactly the sort of question that would have to be looked into on its own merits.

613. Each time it would have to be considered on its merits?—Each exhibition has to be considered on its merits, and with a permanent department you would have somebody capable of dealing with the question.

614. Then about the details of the management of exhibitions; do you think they have been properly done in this country?—Yes; I do not think they can be improved upon.

615. Have they been done as well as they have been done by foreigners?—I think a great deal better. As far as my experience goes, the whole system was arranged in the first instance by two very capable organisers, one Sir Henry Cole, and the other Sir Philip Owen. I think very little has since been done except development on the principles laid down by those two men. I am quite certain that, as I say, up to the time of which I have any knowledge, the organisation of the British section was far and away superior to that of any other country. Foreign Commissions used to come and ask us how things were to be done.

616. Do you think that Government authority is a necessity for exhibiting?—I think that is absolutely essential in the case of both large and small exhibitions even. It was done once without the Government, but that was a sort of *tour de force*. We were able to organise a British section in Paris without Government assistance, but it was a matter of very great difficulty. It might be done again, but not easily. The lack of Government support and authority was very injurious. Of course, there was one advantage, that not so much was expected from a private committee, and consequently the limited funds available could all be expended on what was absolutely wanted. We were not expected to put up any big buildings, or do any expensive decorations, and so on.

617. And I suppose there was not so much entertaining?—There was no entertaining whatever, except on the part of private individuals.

618. Did you attach much importance to all that entertaining?—I think so. I think it tends to goodwill.

619. It costs a good deal of money, but you would limit the amount very strictly, would you not?—I do not think it wants to be done at all on a lavish scale, but still there must be a certain amount of entertaining and hospitality going on. If one nation does it another has to.

620. And you think it is difficult for us to entertain less than other nations do?—It is difficult for us not to entertain at all if the other people are doing it; but I think that to a very large extent it can be left to private initiative.

621. I do not quite understand what you mean by "private initiative" in this connection?—I mean that it could be left to private individuals to entertain.

622. And that the entertaining should not go into the cost to the Treasury of this country?—I think it has generally been the practice that a certain amount has been spent on entertaining out of the sum allotted to a commission, but it has always been a very small amount.

623. What amount did you spend at Chicago?—In Chicago we had a grant of £60,000.

624. Do you take that as a fair average of what we ought to spend at a big international exhibition?—That is not anything like enough to allow this country to compete on equal terms in the way of ostentation and show with other countries. Germany is said to have had a grant of £170,000. I asked the German Commissioner what amount he had to dispose of, and he told me that he had practically got *carte blanche*, and he could have as much as he liked.

625. Besides that amount?—Yes.

626. So that he might have exceeded the £170,000?—It is a long time ago, and I do not remember exactly what he said, but it practically came to this: that he was able to spend any amount in reason which he required. The expenditure of the German Commission at Chicago must, I am sure, have considerably exceeded £170,000.

627. In what particular were you hampered by not having so much?—Mainly in the way of the decoration of the courts. France and Germany must have spent very large sums on the interior pavilions which

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they set up, and the result was that while many of our British exhibits were superior they were not so well displayed. It seems to me quite an unreasonable thing that a foreign Commission should go and put up ornamental structures of that sort. They are very often not wanted, they spoil the effect of the big building in which they are put, and they are very much out of place; but still they are advertisement and ostentation, and they lead people to say what a much finer exhibit France or Germany made than England, whereas that really is not the case—it is only that they have got a lot of fine plaster of Paris pavilions.

628. A more florid decoration in fact?—A more florid decoration, and much more elaborate looking structures. It is a matter for much regret that the competition between different countries is rather a competition in the attractiveness with which the goods are displayed rather than in the merits of the goods themselves.

629. You speak of the foreign expenditure as being very large at Chicago; that was mainly on decoration, I suppose?—It was really quite impossible to find out what the foreign countries did spend, but the grants which were stated amounted altogether to a million and a half. I think the figures are quite unreliable; many of the countries spent more than was stated, and I do not believe that a number of the countries spent half what they said they did.

630. Would that million and a half be the total expenditure of the countries, whether by the Governments or by private individuals?—No, that was only the Government vote.

631. Surely in many exhibitions the exhibitors spend a good deal in decoration, do they not?—Yes, certainly. At Philadephia the then Commissioner, Sir Herbert Sandford, tried to get information as to the expenditure of individual exhibitors. He worked it out that the average expenditure of each industrial exhibitor was £190, and that the value of the goods he showed was about £400. I did the same thing at Chicago, and I found that the average value of the exhibit was £715 and the average amount of expenses £374; that was as far as returns were made, and I believe that those returns were fairly trustworthy. That means that the total expenditure of the British exhibitors at Chicago was £115,000, which you see is not very far from double the amount of the Government grant.

632. I suppose that at Chicago the very large area which I remember was occupied, and the great distances between the different pavilions, made an addition to the cost?—Yes. The enormous size of modern exhibitions adds very largely to the cost of a foreign section. All the thing is cut up, and you must have a larger staff distributed over the larger area. If you have all your exhibits in one place one man can superintend them, but if you have them in a dozen places, you must have a dozen men to superintend.

633. Are you in favour of exhibiting by countries or by sections or by subjects?—There is no question whatever about the advantage of exhibiting by countries, but that has got to be somewhat impracticable in modern exhibitions which are so big. You can never carry it out entirely now. Indeed, it was never quite possible. Certain exhibits require special accommodation, *e.g.*, you must have machinery in a separate building, because of course you want the power. I think there is no doubt that for a foreign country it is much better to have all its exhibits close together; they make a much better show then, and of course the country does not have to spend the same amount on decoration. You can decorate one building when you cannot decorate a dozen. The separation into classes tends to the advantage of the country holding the exhibition, because the foreign sections are all split up, and therefore rendered much less imposing.

634. Do you think that exhibiting by classes would rather decrease the cost?—If we were allowed to put all the exhibits of the British section under one roof the cost of exhibiting would be diminished very largely.

635. But having to spread them under different classes increases the cost?—It is very much more costly. It is the French who first started the division into subjects.

636. In what year was that?—That was in 1867, I think. The building was circular in plan, and the allotments to countries by sections, so that it was intended to combine both systems. By following a radius of the circle you passed through the court of a particular country. Going on a circular route, you could see all the contributions of each country to a special subject. But the system had obvious difficulties, and was not, I believe, thoroughly carried out.

637. The early exhibitions were not opened in the evenings, I think?—That was so. Opening them in the evenings makes a very much longer day; that is not a very great additional cost to the sections, but it does add something. The main additional expense, lighting, is borne by the exhibition authorities.

638. I suppose the evening opening attracts very large numbers; that is the advantage of it, is it not?—Yes. I should think that in Paris there were many more people there in the evening than there were in the day.

639. Then we come to the question of awards. Have you any strong views about the best system of awards at exhibitions?—I have got a very strong view about that. I think the best system is to have none at all.

640. Do you think people would exhibit all the same?—I do not think it would make a great deal of difference. I know when I was in Paris before the French Exhibition of 1889, I was talking with M. Berger, the French Director-General, and I rather strongly recommended him not to have any awards. His answer to me was that none of my fellow foreign commissioners would agree with me, and I believe he was perfectly right. I think that if you could poll British exhibitors they would be quite content not to have any awards, provided nobody else had them; but I do not think that would be the case with foreign exhibitors, who have not got so many medals as most of our people have.

641. When did they cease to give awards? Now, I believe, you get a certificate that you have an award when you have not, and you buy your medal yourself when you want one?—That is so in some cases.

642. Is it not universal now? Take Chicago?—At Chicago they gave a medal.

643. Did they give you medals at their own cost?—Yes, one medal, not different classes.

644. But they did not give gold medals, did they?—No, a single bronze medal. Of course, there are various systems. First of all, you may give gold, silver and bronze medals, or you may give one medal of one value—no different classes of medals, but only a single medal; or you may offer gold, silver and bronze medals, and then tell the people that they may buy them themselves if they like.

645. That is the present system as a rule, is it not?—Hardly, I think. It varies a great deal. In Paris they have lately awarded medals of different categories, and presented a bronze medal with a certificate for a gold or silver medal.

646. Which you may buy at your own cost?—Yes.

647. Can you tell us whether, in the earlier exhibitions that you were connected with, the actual medals were given by the authorities?—Certainly. At the earlier exhibitions the actual gold and silver and bronze medals were given. When that was first dropped I do not remember, but I think they were actual medals that were given until the Paris Exhibition of 1889. I can look that up and add the information.

648. It is not a very important point; the methods of awarding is a more important point?—I do not think there has ever been any improvement on the original method devised for the exhibition of 1851. It is impossible to award medals fairly. No committee can come and look at a man's exhibit and decide on its merits by looking at it. If you have to test the exhibits the exhibition would never be over, but would have to go on for years and years. Attempts have been made on various occasions to analyse and test goods, but never very successfully. In Paris in 1889 they were quite candid about it. They sent a form round—and I expect they did the same at the last exhibition—asking how many employees the manufacturer had, what were the extent of his works, and so on, in order to guide the jury as to whether he ought to have a medal or not. They were comparatively little influenced by the appearance of the goods. To a certain extent they judged the goods, but they were

guided by the man's reputation more than anything else. I think that is the fairest way of doing it.

649. Would you give the prizes to the biggest battalions of industry?—I would give them to the man who has got the best reputation. If you have a good jury—a jury of experts—they know perfectly well what a man's manufactures are like, and they are not guided by what they see in the exhibition, because they know a great deal more about his manufactures than they can learn by going and looking at them. It is a rough and ready system, but I think, on the whole, it is the fairest. The system in Chicago, and, I believe, it was the same in St. Louis afterwards, was hopelessly bad.

650. What was that?—They decided that the awards should be made by individual judges. A certain number of judges were appointed, and each judge was to have a certain number of exhibits, and he was to go and to report on them individually. The result was that some of the judges abandoned the system, and did not follow it; they formed themselves into committees and went on the old system. Some, I am sorry to say, took bribes. There is no reason why I should not say so, because it was notorious; they were prosecuted, and convicted, and punished. I think a great many more were amenable to influence, without being actually corrupt; and a great many were quite incompetent. Then every judge had his own standard; some gave away medals freely, others only in cases of superlative merit. The American system of single judges seems to me to be the worst that was ever devised for giving the awards at an exhibition. I am not certain what they did in Philadelphia, but I think they had something of the same plan there.

651. I suppose, from your experience, there has always been a certain amount of international jealousy in connection with the awards of medals?—I think it has always been considered that one of the principal duties of every commissioner is to get the largest possible number of medals for his own section.

652. Independent of the value of the exhibits?—Yes, entirely independent of the value of the exhibits or anything else. Some commissioners have been more scrupulous than others. I hope that on the whole British representatives have been reasonably honest, but everybody always did try to do the best for his own section as far as he fairly could. I think we have always been fair about it. But I should like to say that, in spite of the enormous number of exhibition medals, the way in which they are granted, and the contempt with which they are regarded in many cases, exhibitors, as a whole, look upon medals as important, and value them considerably.

653. You spoke of the contempt with which they were regarded. Who has the contempt for them—not those who receive them, surely?—I think everybody who knows about the way in which they are awarded does not look upon an exhibition medal as any great testimony of excellence, though it may be of a certain amount of reputation.

654. The fact is advertised a good deal by the people who have got them, is it not?—Yes. The people who get them are, of course, pleased with them.

655. Do you not think they have a value for trade purposes?—Yes; but I think more value is attached to them than ought to be.

656. And you would like to see them done away with altogether?—I should like to see medals done away with altogether. I do not think it would be a loss to the exhibitions, because I think exhibitors would exhibit just as readily—I am only speaking of British exhibitors—and I think a great many would actually prefer that they should not be put quite so much in competition with their rivals. A man is often more anxious that his rival should not get a medal than that he should get one himself. In some cases I am sure the fact that medals were to be awarded has prevented English manufacturers from exhibiting. They were afraid, not so much of not getting an award, but of rival houses getting awards in competition with them. I believe myself that the general feeling of English exhibitors is not in favour of medals. Naturally this feeling is strongest on the part of those who have actually got a number of medals.

657. I think we now come to a question which is a little outside our reference, and that is the possibility of an international exhibition in London. I do not think we can go into that, except generally. You think that we can hold a Greater Britain Exhibition in London without loss at the present time, do you?—All I have to say about that point is that I am fully convinced that you cannot hold a big international show in London, because you cannot get the money for it, and there is no source from which you can defray the absolute and certain loss. Every big exhibition means a heavy loss, wherever it is held, which has to be defrayed by somebody. The exhibition itself makes a loss, although it may bring in an indirect profit to the country or city where it is held. But it means a direct loss, and that loss has to be defrayed by somebody or other. There is no source in London from which that heavy outlay can be provided.

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658. And you do not think our manufacturers would subscribe to that?—No, they would not subscribe on that enormous scale; it is a question of millions. At the same time, I think a small exhibition, a moderate exhibition, without too much ostentation and of a genuine character, if it was thought desirable to hold one, could be held without loss.

659. (*Mr. Algernon Law.*) Which sort of exhibition is most useful commercially to exhibitors, do you think—the international or the local, or a special exhibition such as the electrical exhibition?—The special exhibition first of all. That is very useful. The electrical exhibitions which have been held have been of very great value.

660. You think that no good result has followed from the exhibition of British engineering and machinery?—It is my impression, on the whole, that British machinery and engineering has not profited by exhibitions.

661. Do you think it would be a good thing not to exhibit in those classes, while exhibiting in the others?—I do not think so, certainly; but our manufacturers appear to think so, because they are very reluctant of late years to exhibit in those classes. They used to exhibit very freely in the earlier exhibitions, but now they do not.

662. If, as some people seem to suppose, we do not get our best people to exhibit, does not the reputation of the country as a manufacturing nation receive injury from an inadequate representation?—I do not think, as a matter of fact, that occurs sufficiently to make it a very strong argument. Certainly in classes in which second-rate manufacturers only exhibit we do get discredit, and that has happened.

663. Do you think if collective exhibits were paid for entirely by the State, that even those who are now reluctant to come forward would come forward and exhibit?—I think so, if they are properly organised. I think that it can be done, as has been shown to a certain extent at St. Louis. I am quite sure that manufacturers would be willing if they knew that a collective exhibit was going to be made to contribute to it, if they were not put to any great cost or to any great trouble. They would do it from patriotic motives, if from no other; any of the large makers would be willing to contribute.

664. You consider that the management of exhibitions should be carried out by an expert, but do you mean an expert in the organising of exhibitions, or an expert of great capacity in trade?—What was in my mind was that we should have a permanent department, and that they should have officials who would be able to do the work, so that a man has not to learn his business afresh when for the first time he has to do the executive work of an Exhibition Commission.

665. Yet you say in your *précis* that as regards the details of management we have nothing to learn from foreigners; does not that statement imply that we need not have an office such as France has?—No, because I think we do it after an enormous amount of unnecessary trouble, but it could all be cut-and-dried. It is exactly the same thing in every exhibition, you know; the same work has to be done.

666. You say the chief item of expenditure is the exhibition of pictures; do you think that they might be cut out altogether in future exhibitions, on the ground of expense?—No, I do not think so; but I think you must remember that it is a source of unprofitable expenditure. I think it would be a great pity in a large exhibition if there were a gallery of pictures and the British school was not represented;

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but you must not put that down to the benefit of industry and trade, and of course it is absolutely unprofitable. It must always be paid for, and it is a very heavy item of expense. If an artist has a picture he wants to sell, you can ask him to show it, and to send it, and to pay for its insurance; but as a rule we want our artists to be represented by their best work, that is, generally, by what they have sold, and not by what they have got on their easels; and then, if you go and borrow a picture from a man you cannot expect him to pay the cost of showing it.

667. With regard to the expenditure on buildings, you say in your *précis* that the grant cannot be made dependent on conditions. What sort of conditions do you infer; are you thinking there of the limits of expenditure?—When making that note I was thinking of the seventh question which you are sending to witnesses, namely, "Assuming that public money is, in any case, granted to the organisation of official exhibits, do you consider that the grant should be made subject to any special conditions as regards (a) the accommodation and facilities offered by the exhibition authorities; (b) the number and quality of exhibits offered by British firms?" I do not think you could lay down any conditions. I think that the proper authority would be able to decide whether the necessary conditions were likely to be fulfilled, and would regulate the grant accordingly.

668. At Chicago did the Germans and the French entertain at the public expense?—Not to any large extent. I should think the outside they did was to have one big dinner and one or two receptions, or something of that sort.

669. I think you said that though British exhibitors would themselves be glad to dispense with awards, they would not be inclined to go in for a self-denying ordinance unless foreigners also went in for it?—That is so.

670. You do not think the British exhibitors would be disposed to exhibit without awards, while all foreigners were receiving them?—No, I do not suppose they would. You see, you would then have the foreign manufacturer who would be advertising his award, and we should have no Englishman able to advertise his.

671. (*Mr. Harris.*) In referring to the Paris Exhibition of 1889, I think, did you not tell the Chairman that the cost of a collective exhibit to the French exhibitors did not greatly differ from the cost of the individual exhibits of British exhibitors?—In the British section that was so.

672. How do you mean, in the British section?—I mean that the cost to the individual French exhibitor and the cost to the individual English exhibitor was not very different. Although the Frenchman was in his own country, if he was showing in a collective exhibit, supposing he was exhibiting on the same scale as an Englishman, it would cost him about the same.

673. That was due, perhaps, to worse organisation?—I should think it was due to some fault in the organisation.

674. You would have naturally expected it to come out very much more cheaply, would you not?—Yes, and I was very much surprised when I heard it. The French exhibitors complained a good deal about the expense to which they were put by their committees.

675. So that the French would not claim what I should have thought was a general result of exhibitions, that the greater benefit would accrue to the country in which the International Exhibition is organised?—Yes, they would, I think.

676. Then, you do admit that that is the principle, as a rule?—Certainly; that, I think, is undoubted.

677. If you admit that principle, does it not strike very much at the root, for instance, of Great Britain exhibiting in any foreign country?—Not entirely; because, although the native as a whole gets the best of it, the foreigner, if he was left out altogether, would be worse off still.

678. And supposing, as you said, that the decoration of a section carries much more weight than the actual industrial exhibits, do you not think that that again has cut out the British exhibitor?—It has not cut him out altogether, but it has affected him adversely, certainly.

679. And has made it scarcely worth his while to exhibit?—That is what a good many of them think, and so they do not exhibit.

680. Then, again, taking another point in your evidence, if the award is not given on the merit of the exhibit, but is simply given to the firm with the best reputation, have we not once more got a reason for really cutting ourselves out of exhibitions altogether?—I do not think so, because the advertising value of the award is equal, however you get it,

681. Then, you come round to the fact that there is an advertising value, and a considerable advertising value, attached to an award?—I did not mean to say that there was not.

682. I rather gathered that you did?—No; a medal has an undoubted advertising value. Not what it once had, but still considerable.

683. Do you think it is just possible that in the last ten or twelve years, since the Chicago Exhibition, the feeling of the trader as to exhibitions may have changed, and that, as a consequence, some of the views which you have indicated may be no longer applicable?—I do not think so, because, although I have not had anything to do with the organisation of the later exhibitions, I have naturally been a good deal interested in the subject, and I have watched all that has gone on.

684. (*Mr. Malcolm Ramsay.*) You have referred to the smaller special exhibitions, and have said that they were neglected; do you suggest that the public ought to spend money on these special exhibitions?—Yes. I think in each case the question ought to be properly considered, and I think in many cases a very small grant would be quite sufficient. What is really wanted is organisation rather than the expenditure of money.

685. As these smaller exhibitions are specialised—as an instance take the Textile Exhibition—surely it is much more worth while for the individual trader to go to them and push his goods there at his own expense than it is for him to exhibit at a big International Exhibition?—Yes; but then, he wants a little organisation to help him, although he does not want any money spent. In most of these minor exhibitions I should think that what is really wanted is someone who can act as the British Commissioner, and if anybody wants to exhibit, can arrange that he has an opportunity, and so on. The expenditure would be insignificant.

686. You do not contemplate that the State should bear the cost of the installations at exhibitions of this kind, any more than it does at the Olympia Motor Show, which is a sort of parallel?—No, but merely that the British exhibitor should be able to exhibit if he wants to.

687. You have referred to the exhibitions organised by Sir Henry Cole and Sir Philip Owen; I forget whether they were State-aided in any way; did the State give any financial grants to these exhibitions?—With regard to the later series, the Fisheries received some subscriptions, but the others had little or no support of that sort. They were not aided by the State, and on the whole they made money. The Imperial Institute was started with the profits of these exhibitions.

688. They were organised, not as a speculation, but on a purely commercial basis, were they not, and the expenses were paid by the entrance fees and the amusements?—I should call them amateur rather than commercial. Nobody connected with them wanted to make money.

689. (*Chairman.*) But they got the ground lent them, did they not? They were held in the buildings and on the ground of the Commissioners of 1851?—Yes, but they paid rent to the Commissioners and also to the Albert Hall. They also paid rates and taxes. The buildings were nearly all new. With regard to the earlier exhibitions, 1871-4, they were subsidised by the Commissioners of 1851, who paid the resulting deficit of £20,000.

690. (*Mr. Malcolm Ramsay.*) You were speaking about the business done by individual exhibitors at the large exhibitions, and you said that the benefits were partial—that some trades, for instance the pottery and furniture trades, got a good deal of business in consequence, and that others did not. Does that not rather suggest that the Government, in giving large grants to these exhibitions, is subsidising some particular industries and not trade generally?—That is hardly a fair conclusion, I think.

691. At any rate, some trades get much more benefit out of it than others?—Certainly, some trades profit much more than others; there is no doubt about that.

692. You were speaking of exhibitions being a cheap form of advertisement for individual traders. Did you mean that traders who exhibit at their own expense at an exhibition have a cheaper advertisement than they would have had by ordinary trade advertising?—That is exactly what I meant.

693. Even though they pay all the expenses of their installation?—Yes.

694. Take the Paris Exhibition of 1889 as an instance. Do you think that the exhibitor there got a better advertisement than if he had spent his money in having, say, new posters?—I do think so. He got his name up there in a conspicuous position for a long time—six months.

695. If it is a cheap form of advertisement, on that basis why should we not expect the exhibitors to bear a larger proportion of the expenses than they have borne lately?—The fact is that they will not do it.

696. If they do not do it, does that not rather point to the fact that they do not think that it is a good enough advertisement?—Yes; many, I believe, do not think so. A great number of exhibitors would not agree with me on the subject; I quite feel that.

697. I am only asking you what is your own opinion?—I think that if a man has got anything which he wants to advertise, whether it is soap or anything else, which he wants to bring before the general public, he can get a very good advertisement by having his name up in an exhibition. But I do not think that in the case of the manufacturer of a steam-engine that argument of necessity applies to him, because he will not want to advertise to the general public; he wants to get at a special and limited class.

698. You said that so long as exhibitions are held we must take part in them. I suppose that is merely on grounds of policy?—It is purely on grounds of policy.

699. And therefore the question of whether the benefit to the trade is sufficiently great does not really come in?—No.

700. Because we have first to consider the policy of the matter, and usually we are bound to answer in the affirmative; and, that being so, the benefit to trade is a less important consideration?—I think the question of policy settles it—according to my own views, you know.

701. Following up the point raised by Mr. Harris as to the effects of an exhibition in opening up new markets; the new markets opened up go to the traders in the country where the exhibition is held, do they not?—No, not necessarily.

702. Does an Englishman exhibiting in Paris open up a new market?—There is no reason why he should not get customers from Brazil or the Argentine.

703. Would not the customers who came over from Brazil to Paris naturally give their orders to French firms? They would have a larger opportunity of seeing French products?—Certainly they would, and they would be more likely to give their orders to French firms; but, on the other hand, they may not find what they want in a French firm.

704. Then, in a very secondary sense, it opens up markets to foreigners who go and exhibit in a foreign country?—No, I do not think so. It may be rather important, but about the practical result I think it is very difficult to say, and I think it would be a mere matter of opinion. You see, manufacturers are not very fond of telling you what their business is and how they get it.

705. Do I understand you to think that the public in England should give more financial support to exhibitions in the future than it has given in the past—I mean give larger grants for the purposes of organising British representation at exhibitions?—With regard to the large exhibitions, I think they ought—certainly larger than they have given recently.

706. You would admit that this would mean a considerable sum of money, I take it?—It would mean an amount of £100,000 or £120,000 for each exhibition.

707. And I suppose they would recur at intervals of three or four years?—They will not recur so frequently in the future. The French will go on having them in Paris every ten years; but I do not think many other people will want to have them. There will not be one in America for a long time. I think they have had enough of exhibitions there.

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708. If the Government wished to spend £100,000 every year for the benefit of trade, and had a free hand, do you consider that it would spend it most usefully on exhibitions?—I do not quite know that I am prepared to give a definite answer to that. First of all, I do not think it can possibly recur every three years. If it happened every ten years, I am inclined to think it would be a wise expenditure; if it were to happen every three years, I should say it was a matter for further consideration.

709. If it is to recur often, the financial burden becomes very considerable?—Certainly.

710. And though one may have to take part in these exhibitions on grounds of policy, the benefit to trade is not so beyond question as to justify the spending of that money merely for the sake of pushing trade, is it?—I quite agree with that.

711. Speaking of the permanent department that might take charge of exhibition work, I suppose it would meet your view if the work were affiliated to some department; that is to say, if it was the duty of one recognised department and one particular official in it to deal with exhibition questions?—Quite so, so long as there is a permanent organisation, and also a place where all the connected knowledge can be stored.

712. You do not want to create a sort of separate department under a separate name, whose business it will be to find grist for its own mill?—No. I think it is very likely that there might not be enough work for anything in the nature of a separate department.

713. Then you said that this department would have to decide how much any grant would have to be. I presume you would mean that it would advise on that point?—They would put it on the Estimates, I suppose.

714. Surely that is not within the function of any department except the Treasury, and the decision must ultimately rest with the Chancellor of the Exchequer. You do not mean to transfer such a power to the department?—All I mean to do is to enable them to say if you go in for this Exhibition we shall want £500 for it, and that would go on the estimates of the department.

715. Then they would have to apply to the Treasury for authority to provide the money?—Yes, just in the ordinary way.

716. (*Mr. Wilson Fox.*) In your *précis* you say that exhibitions are for individual traders a cheap form of advertisement. I can conceive, and I put it to you, that a trader might get more by advertising his goods in this country than he would by advertising them in a foreign country; would not the number of buyers in England be greater?—I suppose that would be so in some cases, but not in others.

717. One or two witnesses have drawn our attention to the increased disinclination of manufacturers and traders to show at these exhibitions; what do you say as to that?—Certainly, that is so.

718. It would look on the face of it as though they were rather withdrawing from that form of advertisement?—That is so.

719. Then you say later on that a Sheffield manufacturer exhibiting may bring trade to Sheffield, but not necessarily to his own house?—Certainly, that may be so.

720. It is not that form of philanthropic advertisement which he is really courting, is it?—I know they feel that, and that is one of the objections. That is where the advantage of the collective exhibit comes in.

721. You say there has been a tendency to lessen the number and extent of manufacturing, engineering, and scientific exhibits, and to increase those of a decorative and ornamental character, such as furniture, pottery, etc.?—That is so.

722. And you add, I see, that that same tendency exists abroad, because you say "this is noticeable, especially in the foreign sections"—I meant that the manufacturers of the country in which the exhibition was held will exhibit machinery and other things to a

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much larger extent. By "foreign sections" I meant foreign to the country where the exhibition is being held, not foreign to our own country. The French manufacturers of machinery will exhibit machinery largely in Paris.

723. Will they exhibit in America?—No, they will not.

724. (*Sir Swire Smith.*) The difficulty of the tariff on getting their goods there would be one objection?—There are many objections. They will not do it.

725. (*Mr. Wilson Fox.*) Would they exhibit in Vienna, which is much nearer?—I do not think so, unless they have special reasons.

726. Is that because manufacturers are beginning to find that it is not a good form of advertisement, do you think?—I do not know, but I think as a rule they feel that it is not.

727. It has been said that we do not find enough money here for these exhibitions; it has also been said that the collective method which has been adopted by foreign governments is the right one, and is better than the one we have hitherto pursued, except at the last exhibition, but notwithstanding that, I understand that still foreign manufacturers will not show out of their own country?—That I really hardly know.

728. Then you say that many industrial firms have owed their prosperity to exhibitions; do you mean by that they have gained a reputation abroad and got orders abroad, or that it has been beneficial to them in this country because of the awards?—I mean that firms in this country have actually founded their business by it. They have begun almost by making a small exhibit at some exhibition, and the business they have got upon that has enabled or assisted them to develop.

729. I was going to ask whether they had got a great reputation, and therefore made business through it, in this country, or had got a foreign connection and foreign trade?—I did not mean that they got a foreign trade, because I do not know about the foreign trade. Of course I do not like to mention any names.

730. Then I see you say that some of our people here, particularly the engineering and mechanical industries, have rather avoided showing at foreign exhibitions, owing to the encouragement and help they have given to the establishment of rival manufactories in other countries. That suggests rather than these particular manufacturers on the balance have got more to lose than to gain by showing?—Than English manufacturers have?

731. That the very advertisement which they are endeavouring to gain for themselves has been the means of helping their rivals more than themselves?—I think it is not so much the advertisement that they gain for themselves as the fact of their showing their actual goods to their foreign competitors.

732. And having them copied?—Yes.

733. That is in those particular trades there would be a balance of loss to these particular manufacturers?—That is what I think.

734. Do you think that would always be the case?—Yes; the conditions are always the same.

735. Therefore the more efficient we are in certain trades the greater danger there is for our people to show their products?—Yes. The first exhibition of all, the Exhibition of 1851, was very far from being an unmixed advantage to British trade.

736. Would you say that on the whole you think exhibitions have been a good thing for British trade?—I think so, certainly. On the whole I should say yes.

737. Do you think, on the other hand, that we have learnt anything from the foreigners by attending exhibitions and looking at their goods?—I do not know; I have not any opinion about it.

738. I notice you say that our organisation is as good, or rather, better, than that of the foreigners?—I am sure it was. I think I may say without impropriety, although I have been responsible for a certain amount of it, that I think the British organisation has been better than the foreign.

739. If that is so, and the foreign Governments find so much more money, our people, in the way of organisation, at any rate, are getting more for their money than the foreigners do?—Yes. You can put it in that way if you like.

740. Take the enormous sums which we hear the Germans spent; if, notwithstanding that, our organisation is so much better, it seems that there is a considerable amount of waste somewhere with the Germans?—Not necessarily; the Germans got more show for their money, and in an exhibition show is the great thing.

741. Do you mean that they show more things than we do?—They do not show more things, but they show them in a more attractive way.

742. Notwithstanding our better organisation?—Certainly. You cannot put up plaster of Paris palaces, however good your knowledge or organisation may be, unless you have got the money to pay for them. That is what it amounts to.

743. Do you think that the plaster of Paris palaces bring in grist to the mill afterwards from a business point of view?—Yes, I do.

744. Do you think it is worth our while to put up plaster of Paris palaces?—Well, I do not know; that wants further consideration. I am quite certain that it adds to the credit, and I believe it attracts business to the people who do it.

745. Still you would deprecate a considerable competition in the amount of money that should be spent upon those things?—Yes. I think it is a great pity that this state of things has come about.

746. There must be a limit to it?—Yes.

747. (*Sir Swire Smith.*) You have just alluded to the point that the Exhibition of 1851 was probably not considered an unmixed advantage; have you noticed yourself any evidence of any important industry in this country that has suffered in consequence of it?—I do not think I should like to say anything that would be put on record to that effect. I think I could mention some cases, but I am not sufficiently sure about it to justify me in doing so.

748. That is one of those things we are constantly hearing, but one does not often find much valuable evidence in proof of it. A man who sends his goods to an exhibition sends them because he wants to sell them, and if he sends a machine and it is copied by a manufacturer of some other country, then the user of that machine in England complains, and says that the English industry has suffered because that machine has been bought and copied by a foreigner. It would be interesting to know if there were really any evidence to show that?—It is really a difficult question.

749. (*Chairman.*) Do you agree with what Sir Swire Smith has suggested?—I do myself agree.

750. (*Sir Swire Smith.*) I think, from the general tone of your evidence, that you do not consider it would be desirable that this country should, so to say, push exhibitions?—No, I do not.

751. But that where an international exhibition is held in any country it is the duty of this country to exhibit there?—I think so, certainly.

752. And to make as good a show as any other nation is making, or as good a show as it can?—Yes, within reason. Beyond that, there ought to be some organisation for keeping an eye on the various small exhibitions, and deciding whether or no English exhibitors ought not to have an opportunity of showing at them.

753. In connection with the smaller exhibitions, say the provincial exhibitions in our own country, would you consider that the State, probably through its South Kensington Department, might do even more than it does in stimulating, say, applied art and objects that would tend to improve our manufactures in that direction?—I should hope if there was a permanent organisation that they would regard such exhibitions a little more benevolently. I do not think they ought to be subsidised or assisted with money in any way, but they might be helped by various Government Departments.

754. You have spoken of what you consider the importance of collective exhibits in the future. In my mind there is a considerable difficulty as to how these collective exhibits should be formed. Take silk as one illustration of the textiles; how would you form a collective exhibit of silk—from certain localities, or from firms, or from an open competition?—There are really two ways in which it might be done. You might go to a number of manufacturers and say, we are going to have a collective exhibit; will you take a stall in it, or a portion of it? Or you might go and say, we are

going to have a collective exhibit: Will you let us have some of your goods, which shall be labelled with your name, and they will be put along with all the other silk goods, and shown to the best advantage, but they will all be in the same show-case and all together? Or you might go to Macclesfield, or Coventry (if there is any silk industry now in Coventry) and say: Will you have a collective exhibit from Macclesfield or Coventry, and make it local?

755. My point is that by going to the firm and asking the firm to contribute, you might very easily have a great mass of similar things by different firms, and the space is always valuable, and as in the case of a collective display the cost would be borne probably by the State, it would be desirable that there should be some expert committee that should select. What have you to say to that?—You would want a committee of selection certainly.

756. That would really apply to every industry?—That applies to every industry.

758. Where you want to get the best that you can select, and where therefore it is not so much a question of firms as of goods, you would practically let it be open to all firms to send the best that they have, leaving this separate expert committee to make the selection from those?—Yes; but on the other hand you often get a manufacturer who is anxious to show on his own account, and you would have to provide for him, too.

758. Would you provide for him in the collective display if his goods were as good or better than those that were exhibited by others?—I think each case has to be considered separately. I do not think there would be any difficulty in arranging it. The idea of the collective exhibit is that people contribute merely their goods, and that they are all arranged into a harmonious collection of some sort.

759. The general trend is apparently towards collective displays?—The collective as opposed to the individual.

760. Therefore, that being settled, there wants to be some method of securing the best?—Certainly; and you must get a suitable committee to start with, or you might get the local Chamber of Commerce, or some organisation of that sort.

761. (*Chairman.*) Did you say the local Chamber of Commerce?—Yes; very often the local Chamber of Commerce could do it.

762. (*Sir Swire Smith.*) You would find, would you not, with regard to the exhibits from foreigners, that probably there would be a much greater desire on the part of foreigners to exhibit in England than, generally, there would be on the part of English makers to exhibit in a foreign country? I put it in this way, because every foreigner could send his goods to England free, and therefore has an open market, whereas any Englishman exhibiting his goods in a foreign country has to meet the tariff. Is there anything in that?—That I know nothing about. My opinion on that subject is not worth giving. Foreigners, I may say, have not shown any tendency to come to exhibit over here at the various minor exhibitions that have been held, and there have been a great many minor exhibitions held in this country of one sort or another, some more or less commercial speculations and other independent organisations.

763. Take the case of the aniline dyes. They showed rather strongly in Manchester, did they not?—I was not aware of that; but that, of course, was a special case.

764. I was rather surprised that you seemed to put art rather in a secondary position with regard to our exhibitions?—I did not mean that at all.

765. The exhibitions have been held, of course, for the promotion of commerce and industry?—Yes.

766. And therefore art rather takes a decorative or outside influence?—I think with regard to the practical value of exhibitions that art must certainly take a secondary place, that is, if you are regarding exhibitions merely as a means of promoting industry—at least, I ought not to say secondary, but it would be a separate place.

767. All the continental exhibitions have been always strongest in art and in industrial art, have they not?—Industrial art is another matter; I am referring to pure art.

768. We are considered to be weakest in art, especially in industrial art; but do you not think that fine art has such an influence upon industrial art that it cannot be too much promoted?—I think that is going rather a long way round. Really, I do not think that a gallery of pictures at an exhibition has any influence whatever upon industrial art; at least, I cannot see that it has any immediate influence, any more than an exhibition at the Royal Academy has, and I am not prepared to admit that at the present time we are weak in industrial art.

769. I should have thought it helped?—If it does, of course it would be in a very indirect way. I should like to say that I hope I have not given the committee the idea that I want to depreciate the importance of the art side of an exhibition, because nobody realises its importance more than I do. I have been merely dealing with its practical effect on industry.

770. (*Sir Isidore Spielmann.*) To continue on this question of art, is it not the fact that every international exhibition that is promoted is not solely an exhibition of industry, but its title invariably runs, "industry, science and art," and art forms quite as important a part of it as anything else?—Certainly it does, but not from the commercial point of view.

771. I suppose you are thinking of your experience in Chicago when you say that?—Chicago and Paris, both.

772. Which Paris Exhibition?—1889.

773. Since then the exhibitions have been less largely loan collections and much more of the nature of artists' exhibitions, have they not?—Yes.

774. Would you not say that at Chicago it was a loan exhibition?—For the most part, certainly.

775. And you had very few artists exhibiting on their own account?—There were many contributions from artists, but the bulk of it, and the best of it, was composed of loans.

776. And consequently very few sales?—There were not many sales.

777. But since then, are you aware that it has been quite the other way about?—No; I did not know it was as much as that.

778. Are you aware that there are very few private owners contributing now, and more and more artists?—No; but of course that is the right direction for it to take provided always you can get as good a representation of contemporary Art.

779. Are you aware that the sales have been large in comparatively recent exhibitions as compared with those to which you refer?—They would probably be.

780. Has any attempt ever been made by the Society of Arts to ascertain what are the direct results of exhibitions upon trade?—No.

781. Or to your knowledge by any chamber of commerce?—Not by anybody. No such inquiry has ever been made to my knowledge.

782. You have referred to Messrs. Doulton attributing their great success to their exhibition of pottery, I think, at Vienna?—Yes; I mentioned their name because I know that the late Sir Henry Doulton, whom I knew very well, attributed it to that exhibition.

783. Do you think there are other trades that have equally benefited in the same way?—Certainly there are, but I do not like to mention names.

784. Can you mention any trades besides pottery? I did mention furniture, and I might mention decorative glass and carriage building. I cannot call to mind any others, but I daresay that with a little thought I might think of some others.

785. With reference to a question that Mr. Wilson Fox put to you, do you not think our manufacturers have almost as much to learn from foreign manufacturers as they have to teach them at these international exhibitions?—Yes, but I do not think a modern exhibition is the place to learn it. I do not think that a manufacturer learns a very great deal by going to an international exhibition; I may be wrong, but I do not think he does.

786. You agree, I suppose, that if we do participate in international exhibitions, we ought to do it thoroughly?—Certainly, we ought to do it properly.

787. You said, I think, you thought about £100,000

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or £120,000 is a large sum for that purpose, and that that ought to do it well?—It varies so much under the different conditions, but, as a very rough statement that is what I thought. If you are going to exhibit in America, for instance, it is a great deal more costly than exhibiting in Paris, because it is further away, and freight and insurance are higher.

788. I think you said that at Chicago Germany had *carte blanche* to spend money?—That is what I was told, practically.

789. For how long has Germany been spending money lavishly on these exhibitions, do you know?—Chicago was the first large exhibition in which she took part, to the best of my recollection. She did not exhibit in the Paris Exhibitions in the seventies and eighties. I think Chicago was the first one, and that that was mainly the reason for the expenditure, because the Germans had never had an opportunity of taking part in a really big exhibition before, so they were all very keen about it.

790. Do you think that by Germany showing and participating so lavishly she injures this country? Do you think she takes orders at exhibitions to the detriment of our manufacturers?—I do not know, and I have no means of saying. That is a question which a manufacturer would be better able to answer. One cannot get at the results, you know.

791. Has it been noted at the Society of Arts that whereas Germany has been participating lavishly in all these International exhibitions, she never has one herself?—She has thought of having one, but has never had one. On two or three occasions there has been a movement for getting up an exhibition at Berlin, but it has never come to anything.

792. Has it been noted as a rather remarkable incident?—I have never heard the remark made.

793. With reference to your having failed at Chicago to form collective exhibits, do you think that was on account of the ignorance of the manufacturers to appreciate the advantages of the method?—No; I think it was trade jealousy.

794. Do you not think there was something in the novelty of the idea which did not appeal to the manufacturer?—Certainly. It has been rubbed into them since, and now they have realised the advantage that there is in it.

795. Do you agree that it will become more easy in future to form these collective exhibits?—Certainly I do, especially after we have had experience of them as we did at St. Louis.

(796. (*Chairman.*) Are there any points that have not been drawn from you by the questions round the table in regard to which you would like to say something to us?—There is one point, which is not a very important one, to which no reference has been made, and that is the amount of indirect Government support as shown by official exhibits by Government departments. Other countries, the French especially, owe a good deal in their sections to that. In any French section abroad there is always a fine show of Sèvres porcelain and Gobelins tapestry. The British Government departments have given very little help, although at some times they have given more than they have at others.

797. We have got no Sèvres porcelain which is being produced by any of our State departments?—No, but we have got the Post Office, and we have got the Army and Navy, and the Ordnance Survey and the Education Department. They all have exhibited at different times.

798. There have been Government exhibits, as you are aware, from the Labour Department, for instance, and the South Kensington exhibits of science and art?—Yes.

799. (*Mr. Wilson Fox.*) And a British Government exhibit has just gone to New Zealand, a considerable number of departments having joined in sending those exhibits?—As I said, they do on some occasions do more than on others.

800. (*Chairman.*) That is of late years, and perhaps it was not done so much in connection with the exhibitions in past years you were most familiar with; there were no Government exhibits as a rule then, were there?—Yes, at some; not many at Chicago, and none at Paris, 1889.

801. (*Mr. Wilson Fox.*) We have heard there is rather a reluctance on the part of British manufacturers to exhibit, and the evidence we have had, so far as I can understand it, is to the effect that in the last two large exhibitions manufacturers and traders have been asked to join mainly by circular. When an exhibition comes on, do you think that any more active steps can be taken to bring the matter before the manufacturers of the country in a more personal aspect?—It has not been left entirely to circular in the past; it has generally been the practice to organise town meetings in various parts of the country.

802. In connection with what exhibitions was that done?—For those exhibitions I have had to do with, we had meetings at Manchester, at Bradford, and at Dublin as well as in London (at the Mansion House); and I think all the Chambers of Commerce were asked if they would organise meetings, and that some did.

803. I only want to find out whether you think sufficient steps have been taken in the past to bring these matters before the manufacturers, having regard to their disinclination to show?—I think so. I think everybody had an opportunity of knowing about each exhibition.

804. Do you think that everything that could be done has been done in that direction?—Yes, I do.

Sir ISIDORE SPIELMANN, a Member of the Committee, further examined.

Sir J. Spielmann

805. (*Chairman.*) I think you have some further information to lay before the Committee in reference to the Royal Pavilion at the Paris Exhibition, 1900?—Yes. In continuation of my evidence respecting the Royal Pavilion I wish to lay before the Committee this panoramic view. (*Handing in and explaining same.*) It shows the pavilions of the various countries in the Rue des Nations at the Paris Exhibition, each pavilion representing the headquarters of the country the name of which you see marked below the illustration. This is, in fact, the copy of a photograph. *This* is the pavilion of Great Britain. You will note it is one of the smallest in the entire row of pavilions. As a contrast I want you to note the pavilion of Belgium, which stands next to it, but covering, I suppose, something like twice the area, because it ran back a very long way; and I suppose, as regards cubic contents, it represents twice or three times the amount. Our pavilion cost £22,000 at least, and was constructed of steel girders with outside decoration. It was a copy of a Jacobean house at Bradford-on-Avon—Kingston House. Please compare this much more decorative pavilion of Belgium, which cost, furnished complete, the sum of 388,000 francs—that is, £15,500. It is a larger edifice, more decorative and much more suited to exhibition purposes. It is very much cheaper, when you consider that the contents of our pavilion were mostly exhibits, the various rooms being provided by such firms as Gillow, Warings (they were not then amalgamated), and similar firms. The figure that I have just given you comes from the architect of the Belgian pavilion. I have not yet received the replies to questions I have asked about other pavilions, but I think I can safely say that, as a rule, they cost just about half, or even less than half the amount we spent on our very much smaller pavilion.

806. (*Mr. Wilson Fox.*) In whose hands was the decision as to the design and the cost of our pavilion?—I think the Executive Committee of the Royal Commission decided that it should be a copy of the Jacobean house to which I have referred.

807. Do you think that they allotted any specific sum for the building of it, or did they let somebody build it regardless of cost?—The Royal Pavilion Committee, to whom the details were left, were given by the Finance Committee the sum which they thought would be required, and the firm of Lucas and Aird undertook to build it at cost price.

808. (*Mr. Malcolm Ramsay.*) The Italian pavilion is about the biggest; at any rate its frontage is very great; have you got its cost?—I have not the cost of the Italian pavilion. The photograph will give you an idea of its comparative size and importance.

809. (*Chairman.*) That Jacobean house was a beautiful building?—Yes, it was.

810. (*Mr. Algernon Law.*) From the photograph it does not look so beautiful as it really must have been; the roof, as one sees, rather spoils it in comparison with the others?—Though in itself it was regarded as a most interesting copy of a Jacobean house, yet it was thought by many that for exhibition purposes we required something more ornate and something very much cheaper. At the termination of the exhibition this building was, I think, sold to Messrs. Lucas and Aird for the sum of £200.

811. (*Chairman.*) The same price as the St. Louis pavilion?—Yes; and the Commission seemed satisfied that no charge was made for pulling it down. These other pavilions were built so much more cheaply that when they removed the main supports the whole thing would collapse, and there was very little to pull down; they were supposed to last but two years.

812. (*Mr. Wilson Fox.*) Ours would have lasted much longer, I should suppose?—Ours would have lasted for 50 or 60 years. *Sir I. Spielmann.* 30 Nov. 1906.

813. (*Chairman.*) There was no object in its being made to last for such a long time as 50 years, was there?—No. When it was pulled down it was removed to Hull, where, I believe, Messrs. Lucas and Aird made it their offices in constructing the Hull Docks. It was re-erected there.

814. I think you have no figures at present showing the cost of other pavilions?—No. I was hoping to have received the particulars of the cost of other pavilions, but they have not come; the one from Belgium is the only one. I have here also, which I hand in, separate photographs of the different pavilions.

Sir Boverton Redwood, called and examined

815. (*Chairman.*) I think I need hardly ask you, but in order to get it on our notes, you have been very closely and eminently connected with your subject, chemistry, for a great number of years, have you not?—With the subject of chemistry for the past 35 years, and with special exhibition work for the past 22 years. *Sir B. Redwood*

816. You have prepared a statement in a form which apparently you would like to read to us?—With your permission, I would like to read the answers which I have prepared to the general list of questions which the Committee has sent out as a preliminary to answering any further questions which you, or any other members of the Committee, may think fit to put to me.

817. I think that would be most convenient. Will you please proceed?—I have numbered my answers in accordance with the numbers of the questions which you have sent to me:—

(1) I have been closely connected with exhibition work from time to time during the past 22 years.

I was a member of the General Committee of the International Health Exhibition in London in 1884, and a member of the Committee of Advice of the International Inventions Exhibition in the following year, and was largely consulted in regard to the organisation of certain of the exhibits at these exhibitions by the late Sir Frederick Abel, who was a member of the Executive Council of both. I also served on juries at these exhibitions, and, in addition, was joint reporter, with the late Dr. C. Meymott Tidy, of the International Jury on Solid, Liquid, and Gaseous Illuminants at the former exhibition.

I assisted in the organisation of the some of the exhibits at the Brussels Exhibition in 1897, and was President of the International Jury for Lighting Appliances and Materials at that exhibition; I was also a member of one of the juries at the Paris Exhibition in 1900.

I was a member of the Royal Commission for the St. Louis International Exhibition of 1904, a member of the Liberal Arts Committee, and as Chairman of the Sub-Committee for Group 23 I took a prominent part in the organising of the British exhibit illustrating Chemical and Pharmaceutical Arts.

I am a member of the British Commission for the Milan International Exhibition of 1906, and a member of the Juries Committee. I am also a member of the Committee of the forthcoming Franco-British Exhibition of 1908.

(2) I am of opinion that the effect of International Exhibitions has on the whole been:—

(*a*) To improve the manufacturing and export trades of this country;

(*b*) To encourage British Arts;

(*c*) To bring about better general commercial relations between the countries concerned.

(3) In my opinion, the particular industries which have chiefly benefited by exhibitions are those concerned in the production of manufactured substances and articles, and I consider that these industries have benefited through the exceptional opportunities thus afforded to the manufacturer to compare his own position with those of competitors among his compatriots, and especially the relative positions and importance of his particular industry in his own country and abroad. He is thus enabled to ascertain whether he is improving his position, maintaining his ground, or being displaced by others; also whether the particular industry in which he is interested is endangered by the more successful conduct and development of it in some foreign country. If sufficiently studious and observant, he may also have new light thrown upon his work, leading to important improvements in processes, with corresponding increase in the value of the products, and may, moreover, be led to discover fresh sources of supply of his raw materials, and novel applications of his products. Through the knowledge thus gained, and the inspiration thus received, the manufacturer's position is strengthened and safeguarded. He may be enabled to extend his business, or at any rate, to maintain a position which, otherwise, he might have lost, and at the worst he will be far better prepared to meet competition than if he had remained in ignorance of the achievements of others.

(4) I have no knowledge of any industry or classes of industry having been adversely affected by exhibitions. It is, of course, conceivable that such an opportunity for comparison of the similar manufactures of various countries may result in injury to a particular industry in one country and corresponding benefit to the same industry in another country, if buyers are thereby led to think that they are not purchasing in the best market, as regards either quality or price; but, assuming such injury to be done, it is probable that the result would have equally accrued either from abstention from exhibiting on the part of those engaged in the industry so injured, or still more from ineffective participation in the industry. As an illustration of the effect of abstention or ineffective participation, I may here refer to the remark I made when presiding at a meeting of the Society of Arts on the occasion of the reading of a paper on the St. Louis Exhibition by Mr. Walter F. Reid, in December, 1904. Speaking of the chemical exhibit at that exhibition, I said that the comparatively unsatisfactory character of the British chemical exhibits at previous exhibitions had unquestionably furnished ground for a contemptuous attitude of mind of foreign exhibitors towards this country, the belief being thus created that certain British industries were in a state of decadence, the true cause, viz., British apathy, being overlooked. I added that the character of the exhibits and of the awards in the British chemical section at St. Louis had removed that erroneous impression in respect of one industry, and had conclusively demonstrated that Great Britain could still venture to put herself in comparison with other countries as possessing exceptional advantages in the conduct and development of the industry in question, for Great Britain had shown the world that even with such a formidable competitor as Germany she could hold her own.

It is also conceivable that in certain cases rival manufacturers in other countries may have learned useful and profitable lessons from the exhibits of a particular country, and have applied these in such manner as to secure a pre-eminence they could not previously claim, but in this matter all have had equal chances of benefiting, and the success of those who have made best use of their opportunities surely cannot be grudged.

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(5) I certainly consider that the direct commercial results obtained by the official participation of this country in international exhibitions have been such as to warrant His Majesty's Government in giving grants for the organisation of British exhibits in future.

I am well aware, as I said on the occasion to which I have alluded, that the prevailing tendency is for manufacturers to regard such exhibitions as evils, but I am of opinion that if they are, in any sense, evils, they should unquestionably be regarded as necessary evils, and if that be conceded it follows that this country should participate in them. It further follows that the participation must be full and complete, for half-hearted, reluctant action may easily become worse than abstention.

I consider that abstention is self-effacement, and ineffective participation a clumsy attempt at suicide.

Without an adequate grant, effective participation has, in the case of this country at any rate, been shown to be impossible of attainment, and the justification for the giving of an adequate grant is that the benefit to a particular industry resulting from participation in an international exhibition is a benefit to the nation, to the whole community, to all those engaged in that industry, and not alone to the exhibitors.

(6) In the light of my experience I am convinced that if participation in international exhibitions were left to private enterprise the results would be most unsatisfactory. Referring again to the chemical exhibit at St. Louis, I know that if it had not been for the liberal grant (£12,500) made by the Royal Commission towards the expenses of this exhibit, nearly all the more important of the firms who participated would have declined to do so. The grant (the whole of which was not expended, the actual expenditure being £10,187 3s. 3d.) enabled us to organise a series of exhibits on a modified "collective" basis, and in respect of these the cost of transportation, installation and insurance was borne by the Royal Commission. In the words of the report of the Finance Committee: "If this arrangement had not been adopted the British section would have been small, as few manufacturers were willing to incur the cost of sending goods for exhibition to the United States, where the high protective tariff restricts imports from foreign countries." It may be urged that if the exhibition were held in a country where the disability referred to does not exist, manufacturers would have been willing to incur the whole of the expense, but I do not think that even in those circumstances such an exhibit as the British chemical exhibit at St. Louis could have been obtained without a substantial subsidy. Even with that strong inducement, the co-operation of the more important firms was only obtained through the personal influence of the members of the sub-committee.

(7) I do not think that experience has shown the need for attaching any special conditions to a grant of public money for the organisation of official exhibits, and as long as the administration of the grant is placed in the hands of such men as those who have been members of International Exhibition Commissions I am not apprehensive of such need ever arising. I am sure that as regards the St. Louis Exhibition, if the Liberal Arts Committee had found that the accommodation and facilities offered by the exhibition authorities were not adequate, or that a creditable representation of the British Liberal Arts could not be secured, the money placed at the disposal of the Committee would not have been expended.

(8) Perhaps the best answer I can give to this question is to state briefly the method employed in the organising of the British exhibit of chemical and pharmaceutical arts.

A sub-committee of the Liberal Arts Committee having been appointed, invitations to participate in the formation of an exhibit which collectively should be representative of the chemical and pharmaceutical industries of this country were issued to a large number of carefully selected firms. Without the intimate personal knowledge of the industries possessed by the members of the sub-committee it would have been impossible to make the necessary preliminary selection of the firms to be invited; and it is obvious that the success of such a representative exhibit as was aimed at is primarily dependent upon the judicious selection of the participants. There must be, in the first instance, a representation of the various branches of the industry proportionate to the relative importance of the branches; and in the second place a due recognition of the relative positions of the different manufacturers. In this connection it may be remarked that not infrequently those whose co-operation is most desired are, for obvious reasons, the least willing to accept the invitation.

The next step was to follow up the invitations issued by a personal appeal to those who had received them. The members of the sub-committee individually and collectively devoted themselves to this laborious and thankless task, being largely aided by facilities for so doing afforded them by the Society of Chemical Industry.

From June, 1903, till June, 1904, the sub-committee met regularly once a week, the meetings usually lasting several hours; and throughout the whole of this period the correspondence entailed considerable labour.

It was not until the sub-committee had obtained such promises of support from the leading representatives of British chemical industries as assured the success of this branch of the Liberal Arts section that they applied for a grant to defray the expenses.

Strong exception had in the past been taken in this country to the practice of forming collective exhibits, which had long been carried out by some other countries; and, to meet this objection, the sub-committee devised a scheme of modified collectivity, based upon the grouping of the exhibits, without the suppression of individuality, to which there had been strong opposition. This scheme was found to work admirably—to facilitate the study of the exhibits, and to add largely to their educational value. In carrying it out, it was found that, in preparing the exhibits in this new form, there was no less need for the exercise of independent thought on the part of the exhibitor, or less opportunity for the display of individuality and originality, and the exhibitors, in responding to the appeal, aimed with conspicuous success at furnishing an instructive series of illustrative specimens, as well as the ordinary selection of commercial products. It is, however, essential to success in carrying out this principle that the organising committee should not merely be conversant with the industries to be represented, but also should have full knowledge of the firms engaged in those industries. The primary object must be the national one of demonstrating what any particular branch of British industry is doing, or could do, in comparison with what is being accomplished by other countries; and everything, therefore, depends upon the judicious selection of the exhibiting firms.

The nucleus of an exhibit having been secured, the sub-committee then proceeded to enlist the co-operation of prominent men of science, universities, and technical colleges, with the result that a considerable number of exhibits of high scientific importance and historical interest were obtained. And finally they created a new departure by obtaining a replica of the low-temperature apparatus employed by Sir James Dewar in his investigations at the Royal Institution. This apparatus was successfully worked throughout the whole period of the Exhibition, under the direction of Mr. J. E. Petavel, of the University, Manchester, who gave periodical lectures and public demonstrations on the effect of low temperatures on the physical properties of matter. The apparatus was, at the close of the Exhibition, purchased from the Royal Commission by the Bureau of Standards of the United States Government, and is now installed at Washington.

It should be added that an important part of the work of the sub-committee consisted in the preparation of an unusually comprehensive descriptive catalogue of the exhibits, which was issued as a separate volume of 181 pages. This catalogue was, on the recommendation of Dr. Keiser, professor of chemistry at the Washington University, adopted as a text-book for the use of advanced students of technology in that institution.

It should further be added that the sub-committee took steps to furnish the British representatives on the International Jury with very full particulars of the various exhibits, in order that these representatives might make known the special features of the exhibits to their colleagues.

(9) In reply to the ninth question, I can only state generally that, according to my experience, Continental nations have exhibited a more paternal attitude towards exhibitors than we have, and have in many instances insisted upon the adoption of a strict system

of collectivity in which individuality has been completely suppressed. This, as already indicated, is strongly objected to by British exhibitors.

(10) Apart from such causes of success or failure as are indicated, more or less definitely, in the answers already given, I am of opinion that failure, or partial failure, of British exhibits in the past, as measured by the awards of the juries, has been partly due to negligence on the part of exhibitors in taking the necessary steps to bring their exhibits effectively under the notice of the jurors. As a juror, I have often been struck by the contrast between the British and foreign exhibitors in this respect. The former have left too much to chance, and have often been absent when the jury inspection was arranged to be made, or have been represented by persons unable to explain the exhibits or to intelligently answer questions put by the jurors. The remedies for these defects are obvious.

(11) My answer to Question 9 to some extent answers this question, and I can only add that I am very doubtful whether any attempt to introduce Continental practice in this country would be successful.

(12) There is, no doubt, much to be said in favour of the appointment of a Royal Commission for the purpose. Such an appointment confers a prestige which is itself an important factor in promoting the success of a British section of an International Exhibition, and, as already mentioned, affords a guarantee that any money granted will be wisely and honestly expended. In my opinion, the chief objection to a Royal Commission is the very serious delay in commencing work which its appointment usually entails. There is naturally keen competition for space as well as for the best positions, and prompt action is very necessary. Usually it happens that long before we have decided upon participation the best portions of the available area have been secured by other nations. If there were some permanent organisation competent to accept the invitation of the exhibition authorities without delay we should at any rate have a fair start in the race. Apart from this, such an organisation would be able at once to apply the knowledge and experience of procedure already gained, and continuity of policy would be assured. I have long considered that some form of permanent organisation should be created, and I strongly recommended it at the meeting of the Society of Arts, to which I have already alluded.

818. (*Chairman.*) I understand that your story, which has been a very interesting one, refers entirely to the chemical exhibit at St. Louis?—Substantially that is so, but I may say that I have incidentally considered in the evidence which I have given the experience I have had in organising and judging other exhibits, including those relating to appliances and materials for lighting and heating.

819. Your exhibit at St. Louis was a very successful one, I believe?—At St. Louis we had, I think, reason to congratulate ourselves upon the result we obtained.

820. Do you know of any direct results to trade from that successful exhibit?—I can only state generally that the exhibitors in many instances have told me that they were glad that they had been induced through the pressure which my committee put upon them to participate in the exhibition. And I understood their remark to mean that they felt they had derived substantial commercial advantage from that participation.

821. But do you not know of any actual transactions in consequence, I take it?—I do not know of any specific transactions, nor do I even know that I am absolutely justified in putting the construction upon their remarks that I have already given you.

822. Still, the exhibitors said they were pleased with the result?—Yes, in several instances the more important of the exhibitors said they were very pleased. They had been most reluctant, as I knew, to participate, but they were very glad that they had been led to do so.

823. There is one branch of the chemical trade that has been very much spoken of, although here I must speak like the man in the street. I am thinking of the coal tar dye question. Was that affected at all by your exhibit?—I think that evidence was afforded that although the bulk of that industry has unfortunately gone to Germany, in certain branches we are still carrying on a profitable business.

824. What special parts of the chemical industry were shown to be satisfactory in this country and better than those of Germany, say, or any other country?—I think we may say that of what are known as inorganic chemicals generally, such as alkali, sulphuric and nitric acids, alum and cyanides; also soap and candles. On the other hand, organic synthetical products unquestionably were shown to greater advantage by other nations, and particularly by Germany.

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825. You speak, in answer to Question 5, about the justification for the giving of an adequate grant, would that mean paying the whole expenses of the exhibitor?—It means paying the expenses which were arranged to be paid in respect of collective exhibits by the St. Louis Commission; that is, the cost of transportation, providing show-cases, insurance, and naturally, under the head of transportation, the return of the goods to those who sent them. But that by no means covers the whole cost. The successful organising of an exhibit by any individual manufacturer demands a great deal of time and thought and labour, for which no recompense whatever was given to him by the Royal Commission.

826. In your answer to Question 8 you speak of a system of modified collectivity; would you explain a little more to me what modified collectivity means?—The system to which I have given that name differs from the Continental collective system in the following way:—Instead of, as on the Continent, the products of a large number of manufacturers of a particular class of goods being all merged in one general group in one large show-case, without any indication being afforded to the public as to who contributed them, we found that we could achieve what we believed was the most desirable aim of collectivity without doing that which was objected to by our manufacturers, by grouping the different classes of exhibits in a series of octagonal cases, so that they were all put together, but they were not so merged in one whole as to suppress the individuality of those who contributed them.

827. You mean to say that you kept the names?—We retained the names, but we grouped the different exhibits. Therefore, anyone desirous of studying, for instance, the exhibits of alkali, would find the whole of them grouped together in one or other division of an octagonal show-case, and he would see in addition who had contributed the specimens which were selected by the committee in order to give a representation of the best that this country was capable of doing. The difference between the two systems, therefore, is that on the Continental basis the name is not given, and the whole of the samples or specimens are put together in such fashion that no one can tell which particular firm contributed any individual sample; whereas, in our case we grouped them together, but without suppression of the name, and therefore anyone could tell at once who contributed any particular specimen.

828. There is a point about the awards on which I should like your opinion. Do you attach importance to the prizes at an exhibition?—I say distinctly that the retention of the name, the maintenance of the individuality of the exhibitor, which I have just alluded to, necessarily includes the retention of the system of awards. I know that there would be quite as serious an objection on the part of manufacturers in this country to any alteration of the system of awards involving discontinuance of prize-giving as there undoubtedly is to the suppression of their names in respect of collective exhibits. I am quite clear that it would be hopeless to suppress them. I would never think myself of undertaking to participate in any attempt to get up a representative exhibit unless I were able to say to the exhibitor, you shall have such award as your exhibit merits. That is, after all, one of the most potent arguments that we can use with the exhibitor.

829. Is confidence felt in the way in which these awards are made, do you think?—I think if you take a case that we have just been discussing, the case of the St. Louis Exhibition, it must be admitted that the judgment of such an international jury as that which dealt with the exhibits there was a really valuable piece of evidence as to the position of the manufacturer in respect of the quality of his products.

830. Going now to quite a different subject, did you see the British pavilion at the St. Louis Exhibition?—No, I did not.

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831. Then probably you did not go to St. Louis?—No, I was not at St. Louis.

832. Perhaps you may have heard from some other people whether they attached importance to that fine palace there which constituted the pavilion of the British section?—I would say in respect of that question, as I would in respect of the question of participation generally, that anything which tends to put us at a disadvantage in the estimation of people whose opinions may have weight, seems to me to be objectionable; and if other nations are in the habit of having an imposing headquarters I think certainly that this country ought to have something of the same kind.

833. I suppose that some consideration would also apply to the hospitality exercised in the pavilion, that is to say, we ought to do the same as other countries?—I think that it makes for success on the whole.

834. (*Sir Isidore Spielmann.*) With reference to the success that you achieved in your chemical exhibit, do you think that if an equal amount of energy had been displayed by other committees similar success would have been obtained by them?—I cannot see any reason why it should not have been. I do not think that we were so situated as to have any exceptional advantages in making an appeal to those who contributed.

835. You did not secure the firms represented in your collective exhibit by circular, but you made personal effort perhaps?—I think it has been long demonstrated that the issue of circular letters is absolutely useless. I know that most firms are in the habit of ignoring an application of that kind. We had, I may say incidentally, an illustration of it in the circumstance that in respect of the St. Louis Exhibition, before the Royal Commission was formed, and when we had simply a Committee appointed for the purpose of organising the British section of the Exhibition, there were a large number of circulars issued to members of the chemical manufacturing trade, many of whom subsequently took part in our collective exhibit. I do not think that we had as much as 1 per cent. of replies to those circular-letters, and the replies that we did get were of the most indefinite character—most disappointing in fact, that is to say, they were disappointing to those who had not had experience of the futility of an attempt of that kind in the past. I had, and I attached no importance whatever to the circumstance that it was reported that to this large number of circulars which had been issued there had practically been no satisfactory replies received.

836. How did you obtain your exhibitors?—In the first place by writing personal letters which were signed, all of them, by one or other member of my Sub-Committee, and then following up those letters very promptly by a personal appeal, usually a personal visit, and exhibiting what I am afraid was regarded as very objectionable perseverance until we succeeded in achieving our object.

837. If other committees representing other industries took the same amount of trouble, do you think the same success might have attended their efforts as regards other collective exhibits?—I cannot see why it should not have done so.

838. With reference to the question of awards, your collective exhibit took a large number, I believe?—Yes, a very large proportion.

839. Have you any reason to think that they were not correctly bestowed? I ask the question because we have heard from another witness that awards given at these international exhibitions are not always thought to be honestly given by the international jury?—I have never heard such a suggestion made in relation to the awards in the particular section I was interested in. But I may say this—there are no keener critics of the action of an international jury in a matter of that kind than the exhibitors who have not themselves received as high an award as some others. We should certainly have had, and it would certainly have come to my knowledge if we had, most serious complaints on the part of some of the exhibitors if there had been any ground for such a suggestion as appears to have come to your knowledge. I must confess that I think such a suggestion must be absolutely baseless. I believe myself that the awards were in all instances thoroughly deserved and most honestly made, and I believe that the report of that particular international jury in relation to chemical products is a document which will bear the keenest investigation from that point of view.

840. We have heard also from another witness that difficulties sometimes exist between manufacturers and their agents, owing to the fact that the agent will not allow the manufacturer to exhibit; have you had any experience of that?—I do not think there is any foundation for such a suggestion. It has been a very common experience with me when I have approached a manufacturer with the object of getting him to exhibit in a foreign country that he has said, "I have agents there, and you know that one must be very careful that one does not offend one's agents; in any case I could not give you an answer off-hand, but if you press it, of course, I must consult my agents, and I am inclined to think that probably they would object." That remark has been made to me in many cases in which I have ultimately succeeded in getting the support and participation of that particular manufacturer; and I do not look upon it as anything more than a stock phrase or objection. Most of those manufacturers that one specially wants to get object in the first instance as a matter of principle to saying yes, and sometimes they give one excuse, sometimes another. I believe the reference to the agent in ninety-nine cases out of a hundred, or at any rate, in the great majority of cases, is simply an excuse.

841. With reference to another objection, that of copying exhibits, do you think any of your exhibitors have lost by having shown, say, in competition with Germany?—I know that there is a very common impression among exhibitors which I put down to insular ignorance, that we have everything to lose and the foreigner everything to gain from participation in exhibitions, and so affording the foreigner the opportunity of examining our goods; and that, on the other hand, we have nothing to learn from examining the goods exhibited by the foreigner. But I think that is a mistaken impression which is very rapidly becoming removed. There, no doubt, are some old-fashioned people who still think that England can do anything that any other nation can do, and usually do it a good deal better, and that if we place our goods on show in another country we may be affording to its people an opportunity of imitating which otherwise they would not have. If you take the case of a machine, it is quite evident that if a foreign firm wants to manufacture an imitation of some successful machine that we have, they do not depend upon the showing of that machine at an exhibition. It is perfectly easy, of course, for them to get one of these machines and copy it. It seems to me, therefore, that there can be no ground for the fear that by taking part in an international exhibition abroad we are affording to rival manufacturers the opportunity of taking some advantage of us.

842. (*Mr. Malcolm Ramsay.*) With regard to your answer to question 3, is it your opinion that different trades have benefited in very different degrees by the participation in exhibitions?—I think they have, and I would suggest that the variation in the extent to which different industries have benefited has been very largely the outcome of differences in the extent to which those engaged in the industry have taken advantage of the opportunities afforded to them.

843. Then you put it down rather to personal grounds than to essential differences in the character of the trade?—I think it is mainly personal.

844. In fact, some are energetic and some are not?—Precisely.

845. In that same answer you speak of enabling the manufacturer to compare his position with those of competitors among his compatriots. Do you hold that it is the duty of the Government to enable the manufacturer to do that, or should he not be left to keep an eye on his fellows and stand his chance in the competition?—My feeling is that this is a unique opportunity of enabling the manufacturer to do that, and that this unique opportunity cannot be furnished without the financial support of the Government. Therefore, I look upon it as most justifiable that there should be a State subsidy of an organisation which affords this unique opportunity.

846. Assuming that, do you think the Government is bound to do more than provide the organisation, and then let the individual manufacturers bear their share of the cost of the exhibit?—I do think so.

847. The Government, having provided the general and secured uniformity, could not the manufacturers pay their share of the expenses after that?—In the first place, looking to the circumstance that in my view the benefit is national—is a benefit, that is, to everybody in the nation, and not alone a benefit to the manufacturer—I think that there is good justification for going further than the giving of such a grant as would simply provide the machinery and leave the individual exhibitors to take advantage of that. I think there is good reason for subsidising the exhibition to a further extent than the mere grant of the necessary facilities. In the second place, I say, in the light of my knowledge and experience, that the British manufacturer never would take advantage of this opportunity if it were left entirely to his own initiative, and he were called upon to defray the expenses. He would probably argue, as I have just indicated, that it was not only going to do good to him to exhibit alkalis. He would say: "Why should I shoulder this burden when there are a number of competitors of mine engaged in the trade who will equally benefit from the advertisement thus given and the position that this country will thus be assisted to maintain in the great alkali industry? Therefore I am not disposed to shoulder this burden, unless you can prove to me that the Government are going to give me not merely the opportunity of showing, but assistance in defraying some, at any rate, of the expenses that I shall incur if I participate."

848. Then you regard participation in an exhibition rather as a general advertisement of the trade of the country than as an effort to help the individual to push his own goods?—I do.

849. And that is the justification on which we give grants?—That is my view.

850. In your answer to the same question, No. 3, you speak of the advantages which the manufacturer may obtain from exhibitions if he is sufficiently studious and observant. That does not necessarily imply official participation, does it? I suppose the manufacturer who is studious and observant can go to an exhibition abroad and notice what is there, whether there is an officially organised British section or not?—No doubt he can, if you do not take into consideration what to some extent I had in my mind, and that is the importance of being able to compare what this country is doing, as shown in the British exhibit, with what other countries are doing. It would detract very much from the value of the object-lesson to a British manufacturer, not an exhibitor, if he went to an international exhibition abroad and simply saw exhibits of goods in his own particular industry made by other foreign countries. It is the circumstance that he is able to compare the British exhibits with the foreign exhibits which renders the opportunity uniquely advantageous to him.

851. Then would you consider that the British manufacturer—I am speaking of the good manufacturer—is not sufficiently informed of the general conditions of the trade in his country to be able to compare them with the foreign products, unless he has side by side with the foreign products his own samples?—Undoubtedly many of them are not.

852. In your answer to our sixth question you say: "I am convinced that if participation in international exhibitions were left to private enterprise the results would be most unsatisfactory." Do you also hold that opinion from the point of view of the individual exhibitor? I mean, do you think that a single merchant gets a better advertisement out of official participation in an exhibition than he would get by employing his own traveller and pushing his particular lines in his own private ways?—What I had mainly in my mind in making that reply was the general effect.

853. I took the passage to mean that, but I am putting to you the counterpart from the point of view of the individual. Is it for the individual a better advertisement to join in a collective exhibit than to employ his own travellers and send them where he likes?—I think in respect of the individual exhibitor that his own particular interest is best served by making as good a display as possible of the industry in which he takes part. I believe that to some extent he derives benefit from the reflected lustre of others. If he, for the sake of argument, not being in the forefront of the manufacturers of a particular article, were showing that particular article, but not in company with others who were making the same thing better and had a higher reputation for it, I do not think that he would derive as great an advantage as he would by showing in company with others, some of whom might be exhibiting that same article in a better form. I base that opinion upon this, that there are two considerations with the foreign buyer in respect of any particular class of goods—first of all there is the general reputation of the country in respect of these goods, and then there is the reputation of the individual in respect of the supply. Unless this country, therefore, makes a creditable general display and leads the foreign buyer to see that she is thoroughly holding her own in respect of the manufacture of a particular class of goods, I think that any individual manufacturer in that particular industry would be placed at a disadvantage.

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854. To take an illustration, do you think that, say, a manufacturer of agricultural machinery would advertise his goods better by sending them over to an exhibition at Chicago, or by sending travellers around Canada? That is the point I had in my mind?—I am afraid I cannot answer that question at all definitely. It appears to me to embrace a number of considerations, but speaking generally I think that the answer which I have attempted already to frame will apply to the case of the agricultural implement; that is to say, if this country had not—we know that she has, in common with America, of course—a high reputation for the manufacture of agricultural implements, and if she did not take steps to maintain that high reputation, I think that the individual manufacturer of a plough, for instance, would find himself placed at a disadvantage. People might say, "Well, it may be that Mr. Jones or Mr. Brown is still making a good plough, but don't go to England for any agricultural implement, because they have dropped out of it, and their place has been taken by the United States, who have manufactured something which is far lighter and far more effective." So that it does appear to me, with submission, that the general view which I have attempted to enunciate covers a case of that kind.

855. In fact, you cannot really separate the general from the particular?—I am afraid not.

856. Your view, I understand, is that to participate successfully in exhibitions we must have collective exhibits in some form?—In what I term a modified form.

857. Do you think that we could possibly succeed in getting this system adopted in England, so as to make our participation in any given foreign exhibition really representative of the characteristic trades of the country?—I do not want to be egotistical in my reply, but I venture to think that we did succeed in doing that in the case of the chemical exhibits at St. Louis; and, as I have already said in answer to Sir Isidore Spielmann, I do not see why other groups should not have been organised equally effectively.

858. Would it not have been a very expensive business to get a really complete representation.—No doubt it would have involved a somewhat larger expenditure than was incurred in connection with St. Louis, taking the illustration of the cost of the chemical exhibits. It seems evident that a few thousand pounds more would have been needed to be spent.

859. Turning to your point as regards copying particular machines, I think you said that if a foreign rival wished to copy the goods of a British manufacturer he could always get a sample machine from the manufacturer at home and then copy it abroad?—Yes.

860. But I suppose it is more easy for him to do so at an exhibition, because he has a greater variety of machines under his eyes, and can thus find out where to go to find the particular one which is most suited for his own purposes?—I think it may be helpful to him in enabling him to decide which is the best particular form to copy; but I do not think that he could successfully copy a machine with the opportunities afforded for that at an exhibition. I have a good deal of experience of what has taken place in the automobile industry, for instance.

861. My only point was that at an exhibition he would have a greater selection to choose from?—Yes, that is so; but it only carries him to the point, in my judgment, of deciding which machine he would like to copy, and it does not enable him to copy it. As in the case of the automobile, as has been done over and over again by various countries in copying the success-

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ful machines of others, he has to get one of the machines and pull it to pieces and make a very minute study of it, such as he could not possibly make at an exhibition, before he is in a position effectively to make a copy.

862. Turning to another point, did the individuals who came into your collective chemical exhibit at St. Louis employ their own agents, or did you supply agents?—We allowed the exhibitor a perfectly free hand in the appointment of a representative at St. Louis, but we were quite independent of anything that the paid representative of an exhibitor might say or do in respect of the furnishing of information in regard to the exhibits individually or collectively.

863. Did the exhibitors employ and pay their own representatives?—In some instances, but not in many. They were in most instances so satisfied with the arrangement which we adopted—that was to engage a competent staff first of all to instal the exhibits there, and then to give information in regard to them—that they left themselves entirely in our hands.

864. Then some of them were left entirely to you?—We gave them, as I have said, their choice of action. We gave them a free hand, and some did have representatives of their own, but comparatively few.

865. (*Mr. Harris.*) May I press you a little further on the relation of exhibitions to British trade? You evidently have a high opinion of their educational effect upon the British trader. Do you not think that the real existence of such an effect is quite inconsistent with the admitted reluctance of the British trader to take part in these exhibitions?—No, I do not think it is. And I do not think so for this reason—that I find among manufacturers a similar failure to appreciate advantages in respect, for instance, to research work. If you compare the position of the British chemical manufacturer with that of the German chemical manufacturer, you will find that the British manufacturer does not equally believe in the result to be obtained by such investigations as can alone be carried out by what is called research work; and he is often in that way distanced by his Continental rivals, who do appreciate the very great importance of investigations such as I have alluded to. That, of course, is only a form of education; and, as the manufacturer in this country largely fails to appreciate the importance of educating himself by research work, so it does not surprise me in the slightest degree that he fails to appreciate the importance of gaining the knowledge that he can obtain from participation in exhibitions. In many instances the manufacturer, after he has been driven into participation, admits that he has derived these advantages; and it is because I have had admissions of that kind made to me that I speak as strongly as I do.

866. Do you think that if he realised this the British manufacturer would in future rush into exhibitions more than he has done in the past?—No; I do not think that he will, and my reasons have been already given.

867. Do you not think—when you explain how, after much importunity, you get the British manufacturer to come in—he comes in not so much because he really thinks he will get any good by it, but because he feels that he must really do something for the good of the nation, and so forth, and on broad general grounds of patriotism?—No doubt there are some who are actuated by feelings of that kind in coming in, and who remain in that frame of mind. But I consider they are in the minority among the thinking members of the industry represented.

868. You referred a short time ago to the failure of British exhibitors. Did you mean that positively, or were you using the word simply relatively to foreign exhibitors?—I had in my mind wholly the form of the question on which I based the reply. I was asked to what the failure of the British exhibitors might be held to be due. I was taking the failure for granted, and assuming that there was some ground known to the Committee which had led them to put that question. Personally, I may say that I have never known of any case of absolute failure in the sense of there being any case in which we have not derived some advantage. But I do know that, in a great many instances, the advantage which has been derived, as measured by the awards (as I was careful to state in the answer to that question) might have been much greater than it was. And I went on to explain that that was, I believed, partly because the exhibitors, with their characteristic apathy, had not taken the trouble to see that the merits of their exhibits were properly brought under the notice of the jury.

869. One can understand, as you described just now, a perfectly honest award, as between the competitors in one national section. But do you think it possible that the allegation that awards are not satisfactory may be due to jealousy as between foreign and British sections—that you may get, in fact, a fair award within a British section, but not outside it?—I know, from my experience of international juries, that, more or less, every juror feels bound to be an advocate for the exhibitors from the country which he represents. But, having regard to the character of the men who compose these international juries, I do not think that that very natural and pardonable feeling is allowed to warp the judgment of the jury as a whole to the extent of giving a higher award in the case of country A than in the case of country B, unless the character of the exhibit justifies it. It must be borne in mind, moreover, that the final determination of the award does not rest with the primary jury—that is, with the jury who in the first instance adjudicated upon the exhibits. There are generally two courts of appeal—an appeal to the superior jury and an appeal beyond that. My experience is that in some instances there have been cases where some readjustment has been shown to be justified, owing to the circumstance that perhaps some of the members of the first jury have been a little partial. But I believe it is quite exceptional that such an unfair distribution as that would imply has been primarily suggested; and I do not know of any case in which it has been ultimately carried through, because I think the machinery for appeal provides sufficiently against any risk of that

870. (*Mr. Algernon Law.*) I gather that you did not receive any complaints from the firms who were not selected by you to join in the modified collective chemical exhibit?—We received no actual complaint. There were some informal suggestions made that certain firms who had not been invited would be perfectly willing to accept an invitation to do so. One could easily see, of course, that the firms in respect of whom those remarks were made were desirous of coming in. But we had no real difficulty on that point, because our committee was of such a constitution that we were able to speak authoritatively, and there was not any second-rate firm, in point of fact, whom we did not invite who would have had sufficient courage to press an application of that sort.

871. Do you think it is equally important to take part in special exhibitions—such, we will say, as the electrical exhibition, as it is in the large international exhibitions?—The same thing applies in a modified degree. I think there should be some limit to the extent to which the British Government should be called upon to contribute to exhibitions of this kind. It is conceivable that there might be an unnecessary multiplication of exhibitions of that sort. I think that it would certainly not do to make any hard-and-fast rule that whenever an exhibition, either general or special, of an international character was organised, this country should necessarily participate. I certainly should be sorry if, in anything that I have said, I have conveyed the impression that I should advocate anything of that nature. I do not think that indiscriminate participation could be otherwise than highly undesirable. We must, of course, draw the line at exhibitions of a certain standing and character. Specifically answering your question, I would say that there may be special exhibitions—the electrical exhibition, for instance—in regard to which all that I have said as to general international exhibitions would, I venture to think, apply.

872. The last exhibition you took part in was, I understand, the Milan Exhibition. Have you anything to say to the Committee on the subject of that exhibition—in particular as to how far it was a success generally, from our point of view, having regard to the grant given?—Perhaps I had better confine myself to saying that I think it was an illustration of the comparative failure or limited success resulting from an attempt to secure British participation without adequate facilities being placed at the disposal of those who were organising it.

873. (*Chairman.*) What facilities do you mean—money?—Chiefly money.

874. (*Sir Isidore Spielmann.*) Is it supposed that we participated officially in the Milan Exhibition?—Yes.

875. (*Mr. Algernon Law.*) Because of the official grant?—Not officially otherwise, but only *quâ* grant.

876. (*Sir Isidore Spielmann.*) Was it regarded as a British Government exhibit?—It was regarded as such unquestionably.

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FOURTH DAY.

Friday, 7th December 1906.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
The Right Hon. Sir James Kitson, Bart., M.P.
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Swire Smith.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Mr. Alfred Maskell, F.S.A., called; and examined.

877. (*Chairman.*) I think you have been connected with the Department of Science and Art?—Yes, though not in a permanent way. For a great number of years I have been sent on special missions for the Department or by the Committee of the Council on Education.

878. What has been your connection with exhibitions?—I had an official connection with the Department in the case of the International Exhibitions at Munich and Brussels some years ago. At the International Inventions and Music Exhibition, held in London in 1885 I had the control of the second division—the music division—which was an extremely important one, including the general trade exhibits, and the collection and installation of the very important Retrospective Exhibition. Besides this official experience, I have had the experience of visiting most of the Continental universal exhibitions. I have for many years taken considerable interest in the subject, and have made a study of the Reports and Blue Books on the subject.

879. Are you referring to music only now?—No; I have taken an interest in the whole question of exhibitions. I do not pretend to be an expert in music. Then I have had a considerable acquaintance with the views of the leading industrial and manufacturing firms on the question of participation in universal exhibitions, and I have also a large acquaintance from residence with several foreign countries and our colonies.

880. Have you formed any opinion as to the effect of these exhibitions on the manufacturing and exporting trades of this country?—I have a very high opinion of the value generally of international exhibitions, but I do not think that they have been so largely taken advantage of by this country as in others, where the system of organisation, I think, is different.

881. Would your answer apply equally to the effect on the manufacturing trades, on British art, and on our general commercial relations?—Yes.

882. In your opinion, which are the particular industries or classes of industries which are chiefly benefited by exhibitions, and in what way?—It being taken for granted that exhibitions, properly managed, are of considerable value to commerce, I do not think I could pick out any class particularly, but I should say it would follow that all would benefit. Can anyone doubt, for example, the benefit to the motor trade of the late exhibition at Olympia, or the one now running at Paris? I consider a universal exhibition is merely an extension of that principle.

883. Do you think a staple industry—such, for instance, as the great cotton industry of Lancashire—is helped by an exhibition?—I should think it would apply more to the exhibition of manufactured articles. From the point of view of the manufacturer, the exhibition of the finished article, I think, must help.

884. Then you take it rather that specialities—and new specialities particularly—are helped more than staples, which are made in other countries very much as they are made here?—Yes.

885. Have you had much experience in the classes of machinery?—I should say definitely, no.

886. On the other hand, do you consider that the interests of any industry or classes of industry are adversely affected by exhibitions?—I do not think so. I think it may be said that those who exhibit are pretty well able to take care of themselves.

887. Do you think that the direct commercial results obtained by the official participation of this country in international exhibitions have been such as to warrant his Majesty's Government in giving grants for the organisation of British exhibits in future?—I think that the participation of the Government is of the very first importance, and is absolutely necessary.

888. Would you say that it is better than leaving it to private enterprise?—I do not think that private enterprise ever would possibly endeavour to organise a general international exhibition of all the products of a country in a foreign country. In its own country, as in the case of the Motor Exhibition, a particular industry or trade is likely to be taken up and very persistently run with very great benefit, but I do not think it at all likely that any private enterprise would ever dream of organising the participation of this country in a general way in an exhibition in a foreign country.

889. That is, you think private enterprise can organise one great class of exhibits, but not a whole exhibition?—That is so.

890. Then you still have some belief in Government organisation being better than private organisation?—I think it is of the very first importance. The question may be reasonably asked whether, the credit of the country being at stake, it is not the duty of the Government to act and represent the nation, but further inquiry follows whether of late years that credit has been adequately upheld.

891. I should like to hear from you the particular point in which you think that organisation by the Government would be better than organisation by private individuals or by Chambers of Commerce?—I fancy that in foreign countries, for instance, the Government steps in more in its official capacity and more in a bureaucratic way than we do here. May I refer to the reasons why this country has not been properly represented, and the steps that should be taken to alter that? I think that the Government representation which I wish to urge has considerable relation to that. One of the very great questions, I think, with regard

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to the success or non-success of exhibitions of late years is the want of participation, and the difficulty in inducing exhibitors to come forward and exhibit. My reply to that is, take the case of a foreign country where the Government interferes more than it does here.

892. Will you mention a foreign country?—Let us take, say, France. As we know, the French have a large organisation, and they are able to exercise considerable pressure upon such bodies as Chambers of Commerce and corporations throughout the country, and they have the valuable assistance and even pressure of such officials as their prefects. My suggestion with regard to the extension of Government pressure in this country for the purpose of inducing exhibitors to come forward is that no private method of management can exercise throughout the whole of this country, as a national affair or an Imperial affair, the influence that the Government itself could exercise. Even supposing more use should be made of the Chambers of Commerce and corporations throughout the country, naturally the Government would be the body to request them to take the necessary steps and to aid them in doing so.

893. But the great firms will exhibit for their own purposes; if they do not think it is good for their trade, they will not exhibit merely because they are asked by the Government, will they?—I have found that pressure of a kind or inducement can be exercised by the Government, and even, as you know, by the effect of great names.

894. I am not sure that we should want to exercise pressure by great names, unless it was for the benefit of our manufacturers, should we?—But it is for their benefit.

895. You think it is for their benefit, but they do not know it?—I think experience has always shown that a certain pressure is necessary to induce them to organise.

896. Do you approve of the form in which the foreign exhibits are generally arranged now, that is, as collective exhibits?—Have you studied that question, may I ask?—Yes, I have; and I want to go into the question of the jury, and to suggest the substitution of an alternative method, which would mean to a considerable extent the method of collective exhibits, but at the same time selected ones.

897. Of the two systems, grouping by classes and grouping by nations, which do you prefer?—As you are aware, in Paris in 1900, and in St. Louis in 1904 the practice was followed of grouping in classes similar products from all nations, instead of allotting a space to each nation in which to show all its products. I think if exhibitors were consulted they would prefer the latter plan. From the national point of view, in my opinion, the effect would certainly be more imposing, more striking, and more calculated to attract attention. It is as if one is planting 100 or so of tulips in a garden; the effect of them in a mass is far greater than if they were planted about singly. From the exhibitor's point of view, I doubt if he would care to have next door to his exhibits a competing one from a foreign country. I have had from time to time a good deal of conversation with exhibitors on that particular point, and I gather that they would hold that rather strongly.

898. You mean that they would be in favour of a national exhibit?—Yes, they would prefer to exhibit amongst their own nation. Take the case of a piano manufacturer, for instance. If I were a piano manufacturer, personally I would not particularly like my piano to be *here*, and one of a foreign maker's just over *there*. I can very well imagine foreign visitors saying, "Let us go and see what England has got to show in the way of pianos," and going and seeing what England has to show; but if next door to us you have a piano by a maker of another nation, I think, whatever the value of this piano of ours may be, that is calculated rather to lead at once to an invidious comparison, and personally, if I were the exhibitor of that article, I should not care for it.

899. Must not comparisons always be invidious ones?—Yes.

900. But is not comparison what an exhibition is for? If you were interested in pianos, would you not like to go and see all the pianos there?—At the same time, I think we ought to do everything we can and to take every possible opportunity we can to raise the credit of the country. It does not follow that the person who forms an invidious opinion of our piano is necessarily right. The wrong effect may be produced, because he may not be sufficiently educated to understand it.

901. Anyhow, we may take it from you that you prefer a national exhibit to an exhibit by classes?—Yes, and I think, judging from my experience, that that view is held by a good many.

902. Have you anything to say upon the question of publicity and advertising?—I think it must be admitted that the success of an exhibition depends upon the adhesion of as many of our manufacturers and industrials as we can possibly get hold of. It will also be allowed, I think, that so far there has been always considerable difficulty, and we have not succeeded. The question, therefore, appears to me to be to endeavour to discover what further inducements can be given to the manufacturers and industrials to exhibit. I think they all complain that this country especially does not know sufficiently about it, and that there is not sufficient publicity given. The whole question of an exhibition resolves itself, in my opinion, into a gigantic advertisement for the country concerned, and the more we advertise the greater benefit will those who exhibit derive from it.

903. Do you mean that the people who have things to exhibit do not know that there is an exhibition coming on?—That is one point. They do know it at one time, but one great point of complaint amongst them in all recent cases is that they had not been given sufficient notice.

904. We have been told that a great number of applications are sent out to all the chief manufacturers asking them to exhibit?—They complain that they are not sent out early enough, for one thing. Then, I think, personally, that sufficient pressure is not afterwards used. As a rule, hitherto, the organisation of an exhibition has been to a very great extent limited to this scattering of circulars broadcast, and then leaving it to take care of itself, except in the cases of official exhibits or collections of exhibits.

905. Do you think that somebody should go round to the chief towns?—If I may give an instance that occurs to me, I dare say you will remember that in the earlier years of exhibitions one of the most prominent managers of exhibitions was the late Sir Philip Cunliffe Owen. Sir Philip Cunliffe Owen, I think, made it one of the great businesses of his life; he was always at it; consequently, not only in this country, but in foreign countries wherever he went—and he had considerable influence in this country and also in foreign countries with manufacturers, and he had considerable knowledge of his subject—not only after the Royal Commission had been formed, but always, he was constantly making arrangements and preparations for a forthcoming exhibition.

906. And using his personal influence?—And using very much indeed his personal influence. I am perfectly certain that his personal influence was of extreme value, and I do not think anybody will deny that some of the exhibitions a few years before his death were almost entirely due to his very strong personal influence. What I want to deduce from this, I think, is, if it were not inadvisable, perhaps, for me to say anything on that point, that there should be practically a permanent board.

907. But we should like you to say something on that point, if you have any views on it?—I think, especially in this country, a permanent board of the kind would be of the very greatest value and importance. It would to a certain extent, take, or it ought to do so, the place of the influence exercised by Sir Philip, that I have just referred to, that is to say, it would be always *au courant* with what was being done, not only in this country, but throughout all Continental countries, and it would be in touch with the organisers, and, what I think are to a very great extent, the permanent boards or bureaus in foreign countries for exhibitions generally.

908. Do you consider that the tariff and customs regulations have been obstacles to exhibitors in the past?—I gather that they have been very great obstacles. This is probably a question which has already been brought before you, and you have already very likely received a good deal of evidence upon it. I think it is one upon which objection applies more particularly to America, Russia,

and very distant countries. Nearer home exhibitors have the advantage of large numbers of visitors from their own country, and I think we ought not only to consider the effect upon the foreign country, but the effect upon the very large number of visitors who go from our own country.

909. And also, I suppose, upon the visitors from other countries?—Certainly—in addition to those who belong to the country in which the exhibition is held.

910. Is the objection you refer to that the tariffs in the country where the exhibition is held are so high that it is no good our people exhibiting their goods there?—That they are not able to dispose of the products which they have exhibited.

911. Do you mean that the goods themselves have to be brought back?—Yes. They say, "What is the value of going to this place?" Take the case of the last exhibition in America—for I think this objection applies more particularly to America, and, we will say, to Russia. One may ask what has been the value to the trade of this country from the late exhibition at St. Louis? In this country itself very few people are aware that anything was done at all in connection with that exhibition, as there was so very little publicity. As you will gather from the report, practically nothing was sold of the exhibits, and, as a matter of fact, I am inclined to ask why America asked us to participate. I think the reason is not a difficult one to give. We know that America's policy is to keep out the manufacturers of other countries. Their object, then, in asking us to exhibit was probably to get notions from us. That alone, I should think, would induce our own people here to be rather shy of going.

912. Is that not rather an objection to all foreign exhibitions?—But, at any rate, in other exhibitions you have the chance of deriving some benefit. Take, again, the case of this last exhibition in America. The question to me is what possible benefit it could be to our manufacturers; while, on the other hand, there is a possible considerable detriment.

913. Surely that is rather an argument against what you have told us before?—Applied to America, yes. But I think, from my experience of those to whom I have spoken amongst traders and manufacturers, they would not apply it to our American colonies—Canada and others.

914. Would not the fact of a great many people from Mexico and South America being at St. Louis be of assistance to our exhibitors in getting a market in those countries? You do not appear to think that is a great argument?—I do not think so.

915. Now, I should like to hear your views upon the jury system, and the system of awards and medals?—The jury system and the system of awards and diplomas, which has prevailed universally since at least the great Exhibition of 1851, is rather intimately connected with the general trend of my views. Briefly, the system can hardly be said to be an ideal one, and I do not think it is one upon which exhibitors feel very keenly, or upon which they are satisfied with the methods followed, which have followed for years the same prescriptions and traditions. It cannot, at any rate, be said that the inducement held out has been successful, so far as England is concerned, in overcoming the objections which have for some time prevailed, and caused the abstentions of our leading industries and prevented the gathering together of a display worthy of this country. Whatever may have been at one period or another the value attached to these awards, I venture to say that they are nowadays, if not discredited, at any rate looked upon with indifference. I do not find that an important firm feel that they lose much by not being able to add these awards to their billheads, trade lists, or shop-fronts from the fact of not having been exhibitors. (How many, indeed, come into this category of late years!) Nor, on the other hand, that those who obtain them can feel that the honour is very great when it arises perhaps from the wholesale abstention of others. One is reminded of the case of the boy home from school with the proud distinction of being the first in his class, and concealing the fact that he is the only one in it. I do not propose to follow the question of the objections to the jury system in detail. Some may be gathered from the reports of jurors. For instance, at St. Louis (page 227 of the Report), Mr. Davenport says that "a good exhibit of a low-class art was very likely to receive as high a commendation as a good exhibit of a high-class art. So that there is always a premium upon the lower-class exhibit." In Mr. Litchfield's Report (page 313) there is an interesting suggestion concerning honours of a similar character to the French Legion of Honour. However, this may apply in the present case, it is certain, I think, that in France and in other foreign countries the hope of obtaining a cross or ribbon has an effect of a most stimulating character in procuring the co-operation by exhibiting of the leading industries. That refers generally to the whole trend of my argument, which is to see by what methods we can give greater inducements to exhibitors to come forward.

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916. Do I understand from you that you rather suggest that there should be something in the nature of a legion of honour for the great exhibitors?—I should not like to go into such a question as that, because it is purely incidental. But I am making here a comparison between the great success in inducing exhibitors to come forward in a country like France and the lesser success here. That is not a point that I myself should personally like to lay stress on.

917. Still you are inclined to think it does help in France?—It comes into the general idea. An alteration of the present system would, of course, involve an international agreement. I may perhaps venture to suggest an alternative. Several years ago—I think it was at the time of the Paris Exhibition of 1889—I wrote a memorandum to Sir Philip Cunliffe Owen, whom I then knew very well, suggesting that the jury system at exhibitions should be discontinued, at any rate in the case of our participation in foreign exhibitions when it necessitated our sending over jurors at considerable expense. I proposed that instead of collecting together an *omnium gatherum* of exhibits, trusting to a great extent to the voluntary participation by means of circulars, that the endeavour should be made to form a worthy representation of this country by a process of selection. By this I did not mean only in the sense of the responsibility by the Royal Commission of the whole, but a rigid restriction to the fittest, that is, to the select exhibits which, under the jury system, would entitle the exhibitor or firm to a Grand Prix award. In point of fact, the jury system should be applied first, instead of at the exhibition itself, and the mere fact of being selected for exhibition should form the distinction and honour, equivalent to the medal or diploma. My suggestion and others as to the practical working were warmly commended by Sir Philip. It may be objected that such a system would be difficult to carry out, and I should agree, if the details fell entirely on the Royal Commission. But in the case of an important exhibition, I suggest that general committees should be formed in all the great centres of industry by the Chambers of Commerce or Corporations, composed of those directly interested, who are moreover experts, and the best qualified judges.

918. Then you would have something like the German system, namely, a sort of competition before the goods were allowed to be exhibited?—That is so.

919. Only, as I understand it, you would do it by decentralisation, that is, you would do it locally by chambers of commerce, or through committees formed by chambers of commerce?—Yes. I have observed that they make a strong point of not having sufficient notice, so as to have time to prepare with extra or special exhibits. The practice has been, I believe, to be content in a general way (there are exceptions, of course) with scattering broadcast a number of circulars and schedules with an invitation to exhibit, and to trust to luck for exhibits coming in. On the Continent I imagine the machinery of government is brought into play. The ministries of commerce and the arts have their special experts familiar with and up to date with the matters concerned. Prefects and officials of that kind exert their influence, and chambers of commerce and municipalities contribute their share.

920. I suppose you are giving us this evidence from your knowledge of the systems followed in Germany and in France; or is it only what you understand to be the case?—I can give you no official details.

921. Then perhaps, as we shall be getting direct evidence from other witnesses on the point, we need not trouble you to elaborate it?—May I say that I have knowledge that at the time of the Paris Exhibition of 1900 if the German Emperor himself had not intervened in a very strong manner Germany would not have been represented as she was. I should like to suggest for the consideration of the Committee,

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whether a system of decentralisation might not conduce to the participation of this country in foreign exhibitions becoming more of an imperial undertaking. I do not propose to go into details, but generally speaking I mean that the central executive authority might at least be supplemented by the official concurrence of the corporations and chambers of commerce of the great centres of industry, to whom, with the leading manufacturers, should be entrusted the task of gathering together a collective and representative exhibit. Whether these exhibits should be grouped separately at the exhibition, provincially or by cities or districts, and whether by so doing a spirit of emulation and healthy rivalry would be fostered, would be perhaps another matter for consideration.

922. Are we to take it that you think our manufacturers would be content to have their exhibits examined by a local committee, or by representatives of their local chamber, in competition with their neighbours?—I think there might be difficulties, but I think they could be got over without any great trouble.

923. That is your chief suggestion, is it not?—That, and the jury selection system and publicity I think you may say.

924. I suppose you contemplate the State bearing the cost of all this exhibiting, if the exhibits are admitted by competition?—Certainly.

925. (*Sir Isidore Spielmann.*) You say that Great Britain has not succeeded at foreign exhibitions; will you tell us in what way you think we have failed?—Personally I think—and I believe I should be upheld by a good many visitors from this country to the great exhibitions—that generally from an industrial point of view (mainly because of the failure to induce our great manufacturers and industrials to come forward) the result has been by no means a credit to this country. Everyone has felt that, and in fact I have heard very strong language indeed used upon it: I have heard people who have been to these exhibitions say, "I was ashamed of my country."

926. In what way do you gauge success?—I should gauge success also by the general impression that one gathers from one's acquaintances in a foreign country. If I were asked my reason I should give that as the reason. I feel from what I hear from my acquaintances in such a country as France most particularly, that I have no reason to be proud of the result of the exhibition of the industries from here.

927. What I want to arrive at is what you mean by "the result." Do you mean the general appearance of the British display, or amount of business done, or the number of the awards secured?—The amount of business done cannot be generally known. Practically it is the general appearance and poverty of the display.

928. You state that at the St. Louis Exhibition no benefit resulted to this country, and that nothing was sold?—I would not take the selling of the exhibits as the measure of the benefit; but I should very much like to ask, if somebody could tell me, what public benefit has resulted, commensurate with the cost to the country.

929. I think you referred to that in connection with what you call the prohibitive tariff?—I think that had a great deal to do with it.

930. Notwithstanding the prohibitive tariff, which is especially heavy against this country, are you aware that a larger number of works of art was sold from the British section than from all the other foreign sections put together?—I think that is a very interesting point; but I should rather like to know the details, if it were possible. I do not assert it, but I think it is possible that there may be special reasons for that result.

931. On the matter of awards, you say that firms think very little of them, I understand?—I think so, under present conditions.

932. Have you visited establishments such as Waring's or Chubb's or Crosse and Blackwell's, where you see all over their premises notices that they have taken the highest awards at various exhibitions?—Yes. You heard what I said, generally speaking, about the value of these awards. I was speaking only a few days ago—only last week in fact, before I heard that I should be likely to be asked any questions by this Committee—to one of our leading manufacturers, who has not exhibited for some time. I asked him whether his people thought they had lost by not being able to put more medals or other distinctions upon their billheads, and he said, "Certainly not." If they thought that the value of these medals and distinctions was great, they certainly would have come forward to gain them. So I think it may be said of the very large number indeed of our industrials who refrain from exhibiting, surely the fact that they will not come forward and make an effort to gain these medals shows that they do not hold them in very high esteem.

933. Then you have told us that the French exhibitors exhibit under considerable pressure?—I think there is considerable inducement given; I will not say exactly pressure, except that I imagine it must be generally admitted that the Prefects can exercise a very strong official influence. So far as I know, with the single exception that I mentioned just now, the personal one of Sir Philip Cunliffe Owen, we have not had anything to correspond to that in this country.

934. Are you aware that in France between 2,000 and 3,000 of the most important firms in the country are subscribing members to the *Société Française des Expositions à l'Etranger*, and exhibit in every country where they get the chance without any pressure whatever? Do you know that they are only too eager to participate in exhibitions?—May I ask for my information, in order that I might possibly go further, what you deduce from that?

935. You speak of pressure being brought to bear upon them to exhibit, and I wish to ask you whether you know of such a society existing?—I know that it does.

936. So that really no pressure is required on the part of the chief French firms?—I do not say that it is not required. It is exercised and is of considerable value.

937. (*Mr. Malcolm Ramsay.*) May I press you a little further about the value of exhibitions? Do you hold that the value consists in maintaining the general credit of the country, or that it may also partly consist in the benefit it confers upon individuals in the shape of orders and growth of trade?—I look at an exhibition as a vast advertising agency, with the aim, of course, of maintaining the prestige of the country.

938. Of the country generally, or of individual firms?—Of the country generally. It occurred to me, if I may make the comparison, that the organising commission, whatever it may be called, should regard itself to a very great extent as practically the agent, the commercial traveller if you like, on a large scale for this country, and that it should do as a matter of fact, during the period of an exhibition, and more especially during the period of preparation, what our consuls in foreign countries are supposed to do.

939. I do not quite understand whether you hold that the individuals who exhibit at exhibitions derive benefit from so doing or not. You spoke just now of traders saying that it did them no good; do you hold that they are mistaken in that belief?—There are exhibitions and exhibitions. I think, as I said with regard to America, it did them no good. But then, again, the question of our methods of organisation comes in.

940. What is your general view as to the benefit to individuals on the whole?—I think that the benefit to individuals depends very largely upon the special publicity that I want to urge, and that the injury to them is due to the fact of the want of publicity. If there were more publicity they would gain more and they would stand to lose less—a very great deal. At present, when a firm, we will say, gains a diploma or a medal, practically speaking the country does not know, and it certainly does not know whether it was gained absolutely on its own merits or because great numbers of others abstained. As one of them said to me the other day, if it were generally known that there would be a competing exhibit in their line they could not stand out, but would be bound to come in. Reverting once more to the value of awards and to the question whether a firm suffers any injury through not exhibiting, and therefore not securing one, I think that we shall have here a useful application of the value of publicity, not only in the foreign country, but also at home, to which I first of all alluded. To take, for example, the case of the St. Louis Exhibition, how many in this country know whether this or that firm was an exhibitor or not, and if it were what was the value of the exhibit, or what others were in competition? But the more full and extended

the publicity, so much more valuable would be the effect of participation. If in this or that class or group Messrs. So-and-so exhibit, Messrs. This-and-that could not afford to stand out. They could not suffer an inferior firm to obtain an award. Publicity actually forces co-operation, and instead of having to complain of the paucity of response to appeals to exhibit, I think the matter would automatically adjust itself.

941. (*Mr. Harris.*) If, on the one hand, you are urging that we ought by compulsion to bring in all possible manufacturers ——?—May I say by strong inducement?

942. Very well, by strong inducement. If that is your contention, why do you exclude an exhibition in America, as you did just now, from the possibility of conferring any benefit upon our industries?—I think that almost any manufacturer would say to you: "What is the use of sending things to America?" Outside of exhibitions that is pretty generally felt.

943. But why more so with regard to America than, say, France?—On account of the high tariff mainly, and because evidently the American view is to see what they can get out of it, and not to assist us in disposing of our manufactures.

944. Is that not true of nearly every foreign country? Is not every foreign country which invites us to take part in an exhibition thinking also what it can get out of it?—I hope, at any rate, that in foreign countries there is a *quid pro quo*, but it is generally admitted with regard to America that there is no *quid pro quo*.

945. (*Chairman.*) Of course you are aware that we send immense quantities of very high-class articles indeed, to America; china, as an instance?—I am conversant with the report; I know that. But there are other great industries—say cutlery—which were totally unrepresented at St. Louis, although we manage to do a fair business in them also.

946. (*Mr. Wilson Fox.*) From your *précis* I see that you hold a very high opinion of the value of international exhibitions?—I do.

947. But you do not hold at all a high opinion, I find, of the British exhibits at international exhibitions?—So far, no.

948. You say that British exhibits at international exhibitions have been a failure?—I do, at the late ones.

949. A disastrous failure?—Yes, at the late ones.

950. And you think the British exhibits ought to be made better?—Yes.

951. Who do you think is the best judge of whether exhibitions are a good commercial advertisement—the commercial men of this country or gentlemen who go and look at exhibitions as sightseers?—The commercial men of this country, certainly.

952. But they do not appear to regard these large exhibitions as good advertisements?—That is so; but that, I think, implies that they are not satisfied with the methods of organisation.

953. Are there not some very large firms in this country, with enormous capital, who could afford if they chose, with little expense relatively to their output, to organise their own exhibits individually without any Government assistance whatever?—Yes, but the general organisation which they could not control, would affect the value of their so doing. *Mr. A. Maskell, F.S.A.*

954. Why do they not do that? I put it to you that there are many firms in this country who spend annually very large sums in advertisement, and that it would be a small thing to them to spend £3,000 on exhibiting their goods at a large international exhibition; but it would seem in practice that a very large expenditure in the United Kingdom pays them better as an advertisement than showing at international exhibitions?—I do not hold that the mere fact of exposing your goods is an advertisement. That is not the advertisement I refer to. I wish myself to see more use made of the ordinary means of advertisement, such as the Press and other means of that kind in this country, and in the foreign country, while the exhibition is going on. 7 Dec. 1906.

955. There, again, as a matter of business, the Press are pretty keen people, and they will publish anything that it pays them to publish. Anything of real material interest to traders, papers like the "Manchester Guardian" and the "Yorkshire Post," which are largely read by commercial men in the North, will publish. Do you not think if these exhibitions are of importance to commercial men the Press would publish news about them?—I do not think that the Press would refuse to publish anything that related to these exhibitions which was put before them, certainly officially by the organising committees—that is to say, practically by the Government. I simply say that has not been done, and they have not been asked to publish anything.

956. Generally, although many commercial men in this country do not think that it is the best form of advertisement for them, you think that, notwithstanding that, the taxpayer should be asked to advertise these commercial exhibitions in that particular form?—I do, absolutely, because it is for the credit and prestige of the country generally and for other reasons.

957. (*Sir Isidore Spielmann.*) What are the dates of the two exhibitions which you have referred to at Munich and Brussels?—The Brussels Exhibition was held in 1880, and I think the exhibition at Munich was in 1876.

958. Were they both, strictly speaking, international?—Yes.

959. Take the exhibitions at South Kensington, with which you were associated; do you describe those accurately in calling them international?—Certainly; that was the official term.

960. Were they international merely in name, or do the catalogues show that other nations participated in them?—Certainly. Take the Inventions Exhibition, its official title was the International Inventions and Music Exhibition; and I think the promise implied in the title was carried out.

961. Did foreign countries participate?—Yes, but not to a large extent.

962. (*Mr. Malcolm Ramsay.*) How do you define "international" as applied to an exhibition?—I suppose it means that when you organise an international exhibition, you ask the entire world to co-operate; and it is, to a certain extent, I suppose, a competition.

Mr. Arthur Serena, called, and examined.

963. (*Chairman.*) What has been your experience in connection with exhibitions?—I was on the Commission of the Brussels Exhibition, and I have been acting as honorary Executive Commissioner for the Milan Exhibition; but in addition to that, I was on the British committee of the Liège Exhibition, and also on the committees of the two Italian Exhibitions which were held at Earl's Court at intervals—I think there were about 8 or 10 years between one and the other. *Mr. A. Serena*

964. Have you formed any opinion as to their effect on the manufacturing and exporting trades, on British arts, and on the general commercial relations of the countries?—My opinion of the effect of exhibitions in the special directions indicated is that they are a special advantage to the manufacturing and exporting trade of this country, as they bring the users and producers into contact with a wider public, and enable them to place their products before a more numerous body of possible buyers than they would be enabled to do in the ordinary course of commerce, and hence that it affords them an important means of advertising and enlarging their business in an exceptional way. It also gives them a valuable opportunity of gauging the effectiveness of such local agencies as they may have already established. As regards British art, although the trade in products of British art could not conceivably at any time constitute a very considerable proportion of our exports, still, there cannot be any doubt that the sale of products of this kind is more susceptible of increase through the exhibition form of advertisement than the ordinary commercial product, as these undoubtedly good products are extensively bought at exhibitions. As regards the general commercial relations between the countries concerned, there can be no question as to the beneficial effects of exhibitions. Mutual knowledge invariably promotes

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mutual interest, consideration, and esteem, and leads almost invariably to increased business through bringing buyers and producers face to face. Exhibitions also afford valuable and legitimate opportunities for manufacturers to personally discover the possibilities of foreign markets.

965. Which, in your opinion, are the particular industries or classes of industry which have chiefly benefited?—Those products are directly benefited for which there is an extensive though, possibly, undeveloped demand in the locality of a given exhibition, and it is often possible, by showing products of a novel character at exhibitions for which a demand does not exist, to create that demand. The effect of exhibiting is comparable to general advertising, and it is just as difficult in the one case as in the other to state what special industries or products are benefited or what are not by advertising or exhibiting. In this connection I would refer to the enormous change that has been effected through sanitary firms, such as Doulton's, exhibiting at the international exhibitions in France, in the creation thereby of a market for sanitary appliances.

966. On the whole, you think it is in specialities and not in staples that the greatest benefits are derived?—Exactly. In specialities when exhibitions are held in highly developed centres and in staples when held elsewhere.

967. And you give as an example Doulton's specialities in sanitary work?—Yes, of the first category.

968. Do you consider that the interests of any industry or classes of industry are adversely affected by exhibitions; and if so, which are the industries, and in what way are they affected?—It would be a rash thing to say that advertisements injuriously affect any industry or class of industry, so long as it is kept within ordinary bounds, and is judiciously carried out. The same remark applies to exhibiting, providing the exhibit is well and attractively made, so as to impart an ocular impression of the excellence and importance of the exhibit. Purchasers then cannot fail to be influenced to buy. Only minor industries, whose presence in exhibitions I strongly deprecate, and whose object in exhibiting is sales for immediate delivery, might conceivably be prejudicially affected.

969. What do you mean by minor industries?—I mean what are generally known at exhibitions as "fakers." They sell very second-rate articles, such as Birmingham jewellery, the cheap class of jewellery, and the like inferior quality of goods, which can be had very cheaply. They sell them across the counter.

970. They are merely things to be sold on the spot?—Yes.

971. But I suppose there is a great market for cheap things in most European countries?—No doubt there is, but it does not bring great credit to the producing country to offer shoddy goods, and they should not form part of an exhibition.

972. Not to the country, perhaps, but to the exhibitor it does?—The exhibitor generally does a good trade in these things. If it is contended that the exhibition of special products of manufacture (novelties) and special machinery (patents) enables trade rivals to copy and counterfeit, in my opinion the opportunities of so doing is certainly not increased by exhibiting, as these are sufficiently ample already for the unscrupulous, who can with little or no difficulty obtain samples of either through the ordinary wholesale agencies at any time.

973. Do you consider that the direct commercial results obtained by the official participation of this country in international exhibitions have been such as to warrant the Government in giving grants for the organisation of British exhibits in future?—I cannot say whether the direct commercial results obtained by the official participation of this country in international exhibitions has been such as to warrant the grants, but I do say that if this country wishes to maintain her position in the markets of the world she must take part in most of, if not all, international exhibitions.

974. Do you consider that you could have equally satisfactory results from private enterprise?—No successful results can be obtained by unassisted private enterprise for the following reasons:—That a Commission having the State at its back is raised above all suspicions of trade and manufacturing jealousy amongst possible exhibitors, and is therefore enabled to appeal with unquestioned authority to a larger proportion of the exhibiting community than it could otherwise do; in a word, it gives it an independent status and dignity which it could not otherwise possess, for want of which the British exhibitors have at times found themselves at a disadvantage in comparison with those of foreign nations who have been officially represented. In addition to the above I would point out that the condition of State participation, even in a modified degree, necessarily improves the position of the section and the exhibitors therein as well as of the executive, when dealing with a foreign organisation, and enables them to secure the most favourable consideration at their hands in all important matters.

975. Assuming that public money is granted for the organisation of official exhibits, do you consider that the grant should be made subject to any special conditions as regards (a) the accommodation and facilities offered by the exhibition authorities; or (b) the number and quality of exhibits offered by British firms?—As far as condition (a) is concerned the grant of money in aid of an exhibition might very properly vary in proportion with the cost of acommodation and the facilities offered by the organisers of the exhibition in question, but it could not, in my opinion be made to depnd upon condition (b), as the number and quality of exhibits procurable must rather depend on the financial facilities at the disposal of the organising British Commission, whose success depends on their being able to assist firms in various ways, in order to place them on a better footing of equality with their foreign competitors.

976. From your experience, can you state briefly what have been the methods employed by the British Government in organising exhibits?—Exhibits at various international exhibitions have been organised with Governmental aid in two ways, (a) by Royal Commissions, by Royal Warrant, accompanied by a large grant from Parliament; and (b) by commercial Commissions, by the approval of the Foreign Office, with or without a grant of relatively smaller proportions from the Treasury, subsequently ratified by Parliament. To the former category belong the Chicago Commission of 1893 with a grant of £60,000, the Paris Commission of 1900 with a grant of £120,000, and the St. Louis Commission of 1904 with a grant of £150,000. To the latter category belong the Brussels Commission of 1897 with a grant of £5,500, of which £800 was returned to the Treasury, and the Milan Commission of 1906 with a grant of £10,000, of which sum £4,000 may be returned.

977. As you have alluded to the Milan Exhibition, would you tell us how you will be able to return so much?—The grant was given at a very late hour, and we were not able to build any pavilions of our own; even if we had had the money we could not then have built the pavilion, because the best sites had been taken by other nations. We were obliged to take advantage of the pavilions that had been built by the authorities for those nations who cared to go into them, and we bought the space from the authorities so that we might put our exhibits into them. In addition to that, this was the first time that I had handled, as executive officer, an exhibition, and I could not tell to what extent this money would go. Being public money everybody wanted to have a little of it, and I had to be very careful indeed how I spent it.

978. (*Mr. Wilson Fox.*) You resisted those blandishments successfully?—Yes. In addition, my services were given absolutely in an honorary capacity, and I worked with a very small staff at both ends. I induced the London Chamber of Commerce to give us offices free of cost, and I made a similar arrangement on the other side. These, of course, could legitimately have been charged for, and might have entailed the expenditure of considerably more money. I was excessively economical in every way, and handled the thing even more carefully, perhaps, than I would have handled a business of my own. We secured our space from the authorities at a very low price, and sold it to our exhibitors at a higher price, which, however, was still very low, as compared with what other nations were charging, and this enabled us to make a fair profit. The final result will be that after having returned some 25 per cent. of the amount paid to us for space by the exhibitors towards meeting part of the heavy expenditure incurred by them for transport and other charges, we shall have a surplus

—I cannot say exactly of how much, but it will be some £4,000—to give back to the Treasury. The whole business has been worked on purely business lines, and as economically as it could possibly be done.

979. (*Chairman.*) The first reason you gave was a very important one—namely, that you did not spend a lot of money on an expensive pavilion?—If we had built pavilions we would not have had to pay for space, but we should probably have had to charge more to our exhibitors than they actually paid. The exhibition was divided up, and, as a matter of fact, very few nations had all their exhibits under one roof. France had a very fine exhibit of the decorative arts in a beautiful pavilion that was built specially for her in a very prominent position, which enabled her to make a very fine show. In any case, France would have made a good show, but having a pavilion all to themselves they were able to make a finer show than they would have done if they had had to participate in the larger pavilions with the other nations.

980. Do you think the British exhibitors lost or not by not having a pavilion of their own?—I do not think they did, especially in regard to the decorative arts. We had the greatest difficulty in getting exhibitors in that line to send any thing at all. They said, "What is the use of going to compete against Italy and France and also Belgium, who are really ahead in the decorative arts?" They did not think it was worth their while.

981. You are probably aware that there has been a question or two asked in Parliament about the Milan Exhibiton?—I am.

982. There was one asked three days ago by Mr. Wedgwood, and it was answered to the effect, I think, that no complaints had been received by the Milan Commission?—That is perfectly true. We have had absolutely no complaints at all; on the contrary, I have had many complimentary messages sent to me. I do not know what that question can refer to.

983. Did Mr. Wedgwood exhibit?—No, he did not.

984. I suppose if he did he would have exhibited china or porcelain?—The name is very well known, but I do not know whether the Mr. Wedgwood referred to in that connection is connected with the firm.

985. At any rate, you are aware of no complaints of the kind indicated in his question?—None whatever.

986. The London Chamber of Commerce helped you to a great extent, I believe?—The London Chamber of Commerce has always interested itself in exhibitions. I am a very old member of the Council of the London Chamber of Commerce, and they have an Exhibition Committee, of which I am a member. This Exhibition Committee was the nucleus of the Commission that was eventually formed for the Milan Exhibition. The Foreign Office, the Treasury, and the Board of Trade between them delegated the work of forming a Commission to the London Chamber of Commerce, the Associated Chambers of Commerce, and other similar bodies. A few of the members of the London Chamber are members of the Commission, but the Commission is absolutely independent of the Chamber itself, who has had nothing whatever to do with it.

987. Did you find any reluctance to exhibit on account of the connection of the Commission with the London Chamber of Commerce?—I do not think so; I never heard of it.

988. And you do not think there was any opposition among the North-country manufacturers, arising from any jealousy of the London Chamber of Commerce?—I think not. They did not exhibit, as a matter of fact, to any great extent, but it was not for that reason; it was because they did not think it worth while. As I said before, we got this grant at a very late hour, and some of the firms who would otherwise have exhibited, were then very full of work and had not really the time to make an exhibit such as they would have liked to send.

989. They preferred to be making money fast here?—That is so. They were, I know, very busy, all through Yorkshire and Lancashire, and they have been doing remarkably well. More than one of them said to me, "We do not need to go; we are full of work; we are content, and we cannot give our mind to it."

990. They did not look forward to a rainy day, or think that the exhibition might be useful against that time?—No.

991. That is rather a digression, I am afraid, but I thought it would be as well to clear that up as you referred to Milan. The next question I would put to you is one that we have already had evidence on, namely, how do British methods compare with those of other countries? If you have any personal experience on this point we should be glad to hear it, but do not trouble to give hearsay evidence or what you merely understand is other people's views?—I will take the French organisation first, as it will simplify my remarks on other countries. Since 1891, in all matters connected with French participation at international exhibitions, the Government has acted in consultation with a private association known as the French Committee for Foreign Exhibitions, and this has, since 1901, been officially recognised by decree of the President of the Republic as of public utility. On receiving official notification of an international exhibition, the French Government calls upon the Committee to report, and their participation is governed by the advice thus received. The Government leaves all the commercial side of the French representation entirely to this body, reserving to itself only the diplomatic side. In Germany the Government has up to the present officially undertaken the whole organisation and administration of the participation of German industries at international exhibitions, the funds required being partly derived from the public purse and partly from a varying charge for space to certain exhibitors. A private organisation on the lines of the French Committee is in process of formation at the present time, and is intended to supplement and extend beyond official limits, German representation at international exhibitions. The United States have no exhibition organisation, either public or private, of a permanent character, and leave the matter of participation at international exhibitions in the hands of private enterprise. Austria-Hungary has no permanent organisation and depends on spasmodic Government initiative. Belgium has possessed for years a permanent Government organisation depending upon several Government departments, but it has within the last year or eighteen months started a private organisation on the French lines to relieve and supplement Government action. Belgian participation has up to the present time chiefly depended on semi-Government and private initiative for Exhibitions held outside their own country. Italy has no organisation, but one is just being started on the French lines. Switzerland has no organisation; all depends on private initiative, with some Government help. I do not trouble the Committee with minute details of the admirable French organisation, as I have no doubt they are in full possession of them already. There can, however, be no doubt that the existing dual organisation in France has worked admirably for many years, and that it explains the universally remarked extent, beauty and excellence of the French sections at universal exhibitions. I have here the last report of the French Committee, giving the decree, the statutes, and the minutes of all the meetings. The actual working chairman, you will see, is Monsieur Georges Berger.

992. What, in your opinion, have been the chief causes of success or failure of British exhibits in the past; and in what way do you think that the defects, could be remedied in the future?—I think the causes of failure in past exhibitions can be divided into two classes, the first being lack of knowledge and appreciation on the part of the exhibitors of the character and scope of the exhibition, and of the best and most advantageous way of exhibiting. The second is the lack of a definite policy and continuity of action on the part of the organisers of the British sections at international exhibitions. The causes of failure depending on exhibitors are really to a large extent involved in the causes of failure arising from the organisation. The attitude of exhibitors towards international exhibitions is chiefly moulded by want of information, and the only proper remedy is an educatory campaign, which can only be undertaken by a permanent organisation on the lines of the French Committee. Temporary organisations suffer from the initial difficulty of having to get into touch with and impart requisite information to desirable possible exhibitors in a strictly limited and often insufficient time, as well as from the inherent drawback that all their work after the exhibition closes goes for nothing, and that their experience, learnt often at the public expense, is absolutely wasted, while the next exhibition organisation has to start afresh practically without

help from its predecessors. Both classes of defects can be remedied by a permanent organisation working in cordial co-operation with the department of State to which such work is germane, namely, the Board of Trade.

993. You speak about the loss of time in getting into touch with possible exhibitors; how much time did you have in which to try to get exhibits for the Milan Exhibition?—They gave us the grant at the end of September last year, so I could only commence in October, and the exhibition was to have opened on March 15, I think; but, as a matter of fact, it did not open till about four or five weeks after that. We had far too little time, and it was impossible to do anything on a large scale in the time.

994. Did you send out circulars?—We sent out an enormous number of circulars and letters to possible exhibitors in every branch of business, probably some 15,000.

995. And you got a very small proportion of replies?—We wrote to all the Chambers of Commerce to assist us, but I am sorry to say we got very little assistance from them. We circularised and wrote and appealed to all classes, and to all the different trades and manufactures.

996. Did you write through the Associated Chambers, or did you write to the separate chambers direct?—Both. We had several members of the Associated Chambers on our Commission, but we did not rest satisfied with simply writing to the Associated Chambers—we wrote ourselves as a Commission. You asked me just now whether the manufacturers did not exhibit because the London Chamber of Commerce formed the Commission, but, as a matter of fact, the London Chamber of Commerce never appealed to them at all—it was always the Commission.

997. But the Commission was appointed by the London Chamber of Commerce, was it not?—It was not, really. It was appointed by three different bodies. We wrote to all the people in the name of the British Commission, so I do not think any jealousy could come in there.

998. (*Sir Isidore Spielmann.*) You used the offices of the London Chamber of Commerce, did you not?—The people we approached did not know even that. We wrote from Oxford Court, and there are other people in that block of buildings besides the London Chamber of Commerce. We had rooms in Oxford Court, which the Chamber had not let and which we got for nothing; but as a matter of fact, I could have had the Commission in my office, or anywhere I liked.

999. (*Chairman.*) I see that you say in the introduction to your report "Besides the London Chamber of Commerce, *under whose auspices the Commission was formed*, the Association of Chambers of Commerce," and so on?—The Exhibition Committee of the London Chamber of Commerce was the nucleus of the larger Commission which was eventually formed. Most of the members of the Commission are not associated in any way with the London Chamber of Commerce.

1000. Still it was the London Chamber of Commerce who came forward very usefully to do this, and who did good work in connection with it?—That is so, but the exhibitors probably did not know anything about that.

1001. At any rate, you do not think there was on the part of the Northern and Midland Counties' exhibitors any feeling of jealousy of the London Chamber of Commerce in the matter?—On the part of the exhibitors, no.

1002. On the part of the people whom you asked to exhibit?—I say certainly not. If there was any jealousy between the Chambers I did not know of it, and I do not see why there should be any. Chambers of Commerce might perhaps feel a little jealous that the London Chamber of Commerce were connected with the Commission, but I doubt it. I do not think that consideration applies here, because, as I said before, it was the Commission that communicated with the Chambers of Commerce, not the London Chamber of Commerce. In addition to which, a fair number of provincial members of Chambers of Commerce were on the Commission.

1003. Do you consider that any, and if so, which, of the methods employed by foreign countries could usefully be adopted for the organisation of British exhibits?—I consider that the methods of the French, with some necessary modifications to suit our national modes of looking at things, should be adopted to deal with British participation in international exhibitions, and that this organisation should receive habitual recognition at the hands of the Government.

1004. Do you consider that the appointment of a Royal Commission would constitute a satisfactory method of dealing with the organisation and preparation of the British exhibits?—I do not consider that a Royal Commission is at all a satisfactory method of dealing with the organisation and presentation of British exhibits (*a*) because of its necessarily temporary constitution; (*b*) because of its non-commercial way of handling the work to be done, and the consequent want of confidence on the part of the trading and manufacturing community in its work; (*c*) because of the inflexibility of its official traditions and actions; and (*d*) because the commercial community expect unreasonable concessions from a Royal Commission with the unlimited resources of the Treasury behind it, which are alike detrimental to the general taxpayer and to the exhibitor, the one being called upon to subsidise quasi-private interests, and the other losing the practice of self-reliance and personal initiative which are so indispensible in business. What is really required is a national representative committee, drawn from all the representatives of various branches of British industry and commerce, combined with due Government representation.

1005. Is that not what is aimed at on an ordinary Royal Commission?—Yes, but it is never attained. With regard to the £10,000 that I had to handle, because it was Government money there was a general idea that anyone and everyone had a claim to some of it. These matters can best be dealt with by those who have been trained to direct large business concerns, and who, in consequence, are in a better position to make the best use of any money at their command.

1006. Do you prefer the procedure at Milan to the procedure, say, at St. Louis?—Yes, but the permanent body that I suggest should, I think, exist, so that it would not be necessary to have these temporary commissions.

1007. Would you have it appointed by the Government?—No. Government should be represented thereon in conjunction with representatives of the Chambers of Commerce and manufacturers, and, in fact, of the people who are interested in exhibitions, but should not appoint.

1008. I suppose the Government would have to appoint somebody; or should it be left to the London Chamber of Commerce, or to the Associated Chambers of Commerce, or to any separate chambers?—I should say that it should be done by combined action. The Government can appoint in consultation with those bodies.

1009. I do not quite understand what sort of body you wish?—I want a body similar to the one they have in France. That body gets assistance from the Government in proportion to the importance of the exhibition. It is a permanent body, and the exhibitors themselves contribute to its funds. An exhibition starts to-day in any part of the world outside France, and that body has funds to organise it without delay. In the last few weeks we have had applications at the Chamber of Commerce for quite a number of exhibitions. We cannot handle them at all satisfactorily because we have no money. The French body has always funds with which to make inquiries, and it can send to the place and see whether it is desirable to take part in the proposed exhibition. I say that is a very great advantage. Then this body composed of responsible parties can go to the Government with confidence and suggest the assistance that should be given.

1010. This body is a society which, like many other of the French societies, is recognised as of public utility. It has subscriptions from its members, and it gets a grant from the Government, and, as you say, it advises the Government what should be done in connection with a big exhibition?—That is the position.

1011. Do you prefer a society of that sort to a small department entirely under the Government?—Undoubtedly, because it is composed exclusively of business men, and they are much better able to gauge the position and to ascertain whether it is to the interest of their country to take part in an exhibition.

1012. You understand thoroughly, I see, the difference between that method and the German method, which is essentially bureaucratic?—Yes. I say the organisation should be in the hands of those who exhibit—in the hands, that is, of the business element of the country.

1013. But you recognise that it should be a permanent body?—Yes.

1014. And spending very little, I suppose, in the ordinary way?—Yes. If you will glance through the Minutes of the French Committee, you will see that they are dealing with exhibitions in all parts of the world; some of them being quite small and insignificant.

1015. Are there any special views you have about the prizes which are awarded at exhibitions. Do you think they can be given up, or do you think they are important?—I have come to the conclusion that they are not of much value, having regard to the way in which they are given at the present time. They are given with too much liberality, but as long as exhibitors are anxious to obtain them, it would seem to be the duty of the executive to help them to do so.

1016. (*Mr. Wilson Fox.*) I see that at the Milan Exhibition there were about 341 exhibitors?—I think that is about the number.

1017. As far as I can see from the headings I have got, there were very few manufacturing exhibits?—There were a fair number.

1018. I will take the headings. There is first Land Transport?—The exhibits were divided into ten sections. Among these was one called the Working Hall, which was occupied by machinery in motion producing finished articles. That was a most important section.

1019. I see nothing in my list about manufactures pure and simple, except lace. I have not got textiles, nor iron or steel?—Textiles were included in group 42 (section 4) as decorative art products, and in groups 51, 52, and 53 of the Working Hall (section 5) in connection with the machinery producing them. They were further included in group 6 (section 1) in connection with special clothing for travelling and sport, and in group 21, in materials for aeronautics. In group 29 (section 2) for the equipment of ships, and in group 41 (section 4) in their application to furniture and hangings. Iron and steel were included in several groups of section 1 in connection with the equipment of railways, tramways, etc., and in section 2 in connection with ships, and in the Working Hall in connection with machinery in general.

1020. There is no heading of Textiles. What do they come under?—They come mostly under the Working Hall and Decorative Arts. I must tell you that those who initiated the Exhibition at Milan did not intend it to be a Universal Exhibition for all industries. They intended to limit it to Land and Sea Transportation, the two great industries chiefly affected by the opening of the Simplon Tunnel. It subsequently grew far beyond anything that they had anticipated. They never had any textiles as such, except in the Decorative Arts, but they had a Working Hall with machinery in motion which produced textiles.

1021. What manufactures were shown at Milan?—There was paper-making, goldsmiths' work, manufacture of metals in general, porcelain-making, china and earthenware manufacturing, glass-making, leather-dressing, and the manufacture of leather articles. Lastly, spinning of cotton, hemp, jute, wool, and silk.

1022. That would come under the head of Textiles?—Yes. Then, very important machinery was there.

1023. Did you show any forms of food?—Yes, and you will find the food under the head of Temporary Exhibits. We were not responsible for the classifications; they made the classifications, and we had to place our exhibits accordingly.

1024. I should like to know what proportion the manufacturing exhibitors, wholesale and retail, bore to the total number of British exhibitors at the exhibition?—I put in the following table*, which shows that the proportion of manufacturers and merchants to the total number of exhibitors was 51 per cent., and if the shipbuilders be included, then the proportion would become 54 per cent., or more than half.

1025. I understood you to say that you consider our commercial supremacy practically depends on our exhibiting at foreign exhibitions; is that your view?—I say that if there are exhibitions, this country must be adequately represented.

1026. I thought you said our commercial supremacy would depend upon our exhibiting at foreign exhibitions; that is to say, that if we did not exhibit our commercial supremacy would be lost?—We should lose ground, undoubtedly.

1027. The position of commercial supremacy which Great Britain has reached has not been gained by participation in international exhibitions, has it?—No.

1028. Why should it be more likely that we should retain our commercial supremacy by taking part in exhibitions, when the position which we have attained in the commercial world has not been produced so far by participation in international exhibitions?—Because we are losing ground in many of the markets, and other countries have gone ahead. Unless we show those who buy our manufactures that we are in a

* TABLE showing the Number of Manufacturers and Merchants in Comparison with Ordinary Exhibitors at Milan, 1906.

Sections.	A. No. of Manufacturers and Merchants.	No. of other Exhibitors.	B. Total.	A. Per cent. of B.
I. Land Transportation	39	14	53	73·6
II. Sea and River Transportation	28	41	69	40·6
III. Social Economy	—	10	10	—
IV. Decorative Arts	31	55	86	36·0
V. Working Hall of Manufacturing Arts	25	3	28	89·1
VI. Retrospective	—	7	7	—
VII. Fisheries	4	1	5	80·0
VIII. Agriculture	8		13	61·5
IX. Hygiene	5	8	13	38·5
Short Period	23	6	29	79·3
Special Pavilions	7	1	8	87·5
Scholastic	—	12	12	—
TOTALS	170	163	333	51·0

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position to do as well as these other countries, we shall lose ground all the time.

1029. Is there any evidence at all to show—if there is I should like to hear of it; I do not say it does not exist—that foreign countries have gained anything at all by showing at international exhibitions?—I cannot produce any evidence to this effect, but the fact that foreign countries are so keen to take part in any and every exhibition would tend to prove that they are satisfied they do gain considerably by so doing.

1030. That is the first proposition which wants proof, is it not?—Undoubtedly. Merely as an advertisement it is a good thing to exhibit in foreign countries.

1031. We have had information that some of our best people, particularly in certain trades like machinery, will not show because they are afraid of having their goods copied?—I think that is a very feeble excuse for the reasons stated in my answer 972.

1032. We have had that from people who have considered the question?—I may be wrong, but I say that if anybody wishes to copy a piece of machinery, they can go and buy it and copy it afterwards. Anybody in the trade who wishes to copy a thing has the means of buying it.

1033. To take another point that has been put before us, I put it to you, in the first place, that it is much more likely that we should get our machinery copied in America when it is sent out there, and Americans are saved the trouble of coming over here and ferreting out the machinery in order to copy it?—I think they would do it in any case if it was worth their while.

1034. However, that may be, have you not heard there is a considerable reluctance on the part of British exhibitors to exhibit?—Certainly.

1035. Particularly on the part of the first-class people?—Yes.

1036. The first-class people are the ones who could afford to exhibit most?—Yes.

1037. If they can afford to exhibit, and do not exhibit, do you not think the reason is because they consider that particular form of advertisement is not worth the money?—Evidently; otherwise they would do it, unless it be that they have so much work that they do not trouble to extend their connections.

1038. That is probably the view of many of our leading commercial firms?—I think so.

1039. Why should the Government step in and tell them, "You are wrong about this question of advertisement; and we are going to put money down and advertise for you, because we think this particular form of advertisement is right, although you think it is wrong." Do you think the Government should take that attitude?—One of the reasons why these firms will not exhibit is, I think, because of the great cost attached to it. Other Governments defray part of the cost, whereas our Government does not. Our firms do not think it is worth their while to exhibit under those conditions.

1040. Applying that principle to England, might not many traders say, "We should very much like to exhibit in England, but we cannot afford to put up advertisements on omnibuses and at railway stations"; and if so, are the Government to supplement that form of advertisement?—No.

1041. You think they should only pay for advertisements abroad, and not for advertisements in England?—I say that if we want to keep our foreign trade, or to increase it, we must exhibit because the foreigners exhibit.

1042. Is that not rather begging the question? Have we not first to prove that foreign exhibitions do assist foreigners in pushing their trade?—Yes.

1043. If we once establish that, we might then take the attitude which you are taking, that we are rather out of the hunt?—So we are in many markets.

1044. But have you not first to prove that these exhibitions are helping the foreigner? You say we are out of it in many markets, but you have to prove first, surely, that we are out of those markets, because we do not take part in international exhibitions?—We are out of those markets, really, because we do not cultivate them. We do not adapt ourselves to the requirements of those countries, we do not quote in the currency of the country, we do not quote to them in their weights and measures, but go on in the antiquated mode we have been going on for generations instead of adopting more modern methods.

1045. In considering what exhibits the British exhibitor should send to a foreign exhibition, has the matter ever been considered by the London Chamber of Commerce on any scientific basis; that is, have you examined the tariff of the particular foreign country in which we are showing, to see in what line of goods it would be worth while to send things for exhibition?—I do not think so in every case, but it was certainly done in some cases.

1046. Also, has the London Chamber of Commerce examined the class of goods which other countries send, in order to see scientifically which class of goods have a chance of being pushed in that foreign country, and which class of goods have no chance?—The London Chamber of Commerce has taken no such steps so far as I know, but the Commission did.

1047. Do you not think that in dealing with the British exhibits sent to a foreign country it would be a good thing to ascertain really what goods it was hopeless to push and what goods there was a prospect of pushing?—It would be so. In the case of Milan, there is a British Chamber of Commerce in Italy who did issue a circular letter, recommending that certain articles should be sent to this exhibition, because there was a good market for them. The manufacutrers took no notice whatever of that. In addition the British Consul at Milan, who is a very active and very able man, has reported on several occasions what should be sent and the class of goods that would find a market, but the manufacturer here has likewise taken no notice of that.

1048. Would you generally agree that if we take part in exhibitions at all a more scientific consideration of the arrangements of the exhibition should be made?—Certainly. I should agree to that.

1049. (*Mr. Harris.*) Did I rightly understand you to say that your general view was that British exhibits in the past have been, broadly speaking, a failure?—I have told you the experience I have had of exhibitions, which has been of a limited character. I have never taken such an active part in any exhibition as I have in this one, so that I really cannot speak with any authority upon what exhibitions in the past have done. In the case of the Italian Exhibitions at Earl's Court there was a very large business done in this country from the Italian point of view, and therefore I should think that these exhibitions do give good results at times.

1050. How do you mean, from the Italian point of view?—I mean from the Italian exhibitors' point of view. Italian exhibits were sold in London.

1051. Did they sell here the goods which they brought over?—They sold very largely here the things which they brought over, and secured orders upon other things that they exhibited.

1052. Yet I understood you a little time back to tell the Chairman that you wanted to knock out all what you call minor industries, although apparently those were the very people who were doing a business?—I was then speaking of the lower class who are usually called "fakers," because they sell goods that really are not always what they are represented to be, and are of a very low grade of quality, and so discredit the exhibition.

1053. Your view is that that would have a bad effect?—Absolutely bad.

1054. Going for one moment to the Exhibition at Milan, you say that the French made a very good show indeed there, and that you could not put up a pavilion, and had, as I understand, to distribute your exhibits in consequence. Now do you think that France has made a great deal out of that exhibition as against ourselves?—I do not think so. I think that no nation in connection with Milan has made much money. I think it has been rather a disappointment to all the nations. The better class of goods has not been sold. Whether it is that Italy has not the money (although its position is very much improved), or whether it is that the goods are not required in the country, I do not know; but as a matter of fact, taken as a whole, I think the sales have been of a very modest character.

1055. Have you any view whether it is better to exhibit goods of the same class from different countries side by side, or whether it is wiser to make one

national exhibit?—I think goods classed side by side is the best arrangement. That is what happened at Milan. What I said of the pavilions did not refer to all the sections; for instance, all the nations were represented in the Working Hall, which was the one they laid most stress upon, and which contained machinery in motion actually producing the finished article. The exhibits were divided into sections in accordance with their nature, so that side by side you would find two firms, a French and an Italian firm say, manufacturing paper, and you could compare the two.

1056. Were some of the British exhibits exhibited in that section?—Yes.

1057. You did not hear any complaints that they were frightened by the idea of exhibiting side by side with their foreign competitors, did you?—Not on the part of those who exhibited; but that was brought before us. Many exhibitors have raised the question that they did not want the foreigner to copy them.

1058. But were they afraid apparently of somebody saying "This is an inferior article"?—I have not heard that.

1059. That was rather suggested to us by one witness, and I wanted to hear your view of it. That witness suggested that if you had a number of pianos side by side, certain English firms would be rather afraid of somebody coming and saying, "That is such-and-such a firm's, but it does not compare very well with this German piano"?—That would be the English maker's fault. If he cannot produce an article as good as another firm, then he does not deserve to sell his pianos.

1060. But you have not heard that alleged or suggested?—No; but I can quite imagine its being suggested.

1061. (*Mr. Malcolm Ramsay.*) You were saying just now that England was losing her commercial supremacy, and I understood your view to be that therefore it was necessary for us to participate in exhibitions; do I correctly represent your view?—There is no doubt that the foreigner has made great headway, and that in many things he is surpassing us.

1062. Assuming that, does the remedy necessarily lie in spending large sums of money on official participation in exhibitions?—Not necessarily, but I think it is necessary that we should be *en evidence* all the time.

1063. That is perhaps rather another aspect of it?—I do not say that you are actually getting trade by it, but at all events you remain before the buying public. If they only see foreign exhibits, they probably would give those exhibitors an order and forget your existence altogether.

1064. May I ask whether you think that the benefit of participating officially in exhibitions takes the form rather of keeping one's own country before the eyes of the world than of getting specific orders for individual exhibitors?—To a great extent, but it also assists the manufacturer to see what the other nations are doing.

1065. Could not the manufacturer do that equally well by taking a return ticket to the exhibition and looking round?—He might.

1066. Without the State having to give a grant of £150,000, or whatever the sum may be?—Of course that was a very extravagant grant.

1067. The manufacturer can see just as well whether he exhibits or not, or whether the Government helps him?—The manufacturer may see, but the consumer does not see.

1068-1069. Is it your experience that the majority of visitors at the big international exhibitions are the people who are on the look out for new goods, and are in fact the purchasing classes?—I certainly think if they are interested in a particular branch they will go to see what the other countries are doing. For instance, in the agricultural implement class we had some of our leading firms here exhibiting; they had a very good show. It was certainly most necessary for them to be there in view of the very fine exhibits sent from Germany, France, Belgium, and other countries. I am quite satisfied that our people who exhibited, went round to see what the foreigners were showing, and whether there was anything new. Or if they did not do so, they should have done so in order to see whether the foreigner was introducing any new methods or anything which they might themselves benefit by.

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1070. I was thinking rather of the large international exhibitions. I ask you whether it is your experience that the majority of visitors who go to exhibitions go there for purposes of business of for purposes of amusement?—I should think they go for the purposes of amusement, but there is always a large class who go for the purposes of business. Take that particular section, the agricultural implement section, you would not get many of the people who visited that section simply on pleasure bent.

1071. Would not the purposes of the manufacturer of agricultural machinery be served a great deal better by a specialised exhibition than by participation in a World's Fair?—No doubt. If they went themselves and visited all the smaller towns and villages of Italy, and if they had a knowledge of the language, they might probably do business. But my point always comes back, that if the other nations exhibit, whilst it may not bring us any direct benefit, it is necessary for us to be there too.

1072. I quite understand that, which I think is the broad ground of policy, but I am trying to get at the practical side in relation to the individual. The class of exhibitions in which I think the Committee are chiefly interested are the large international ones, but, of course, there are others, like the Italian Exhibitions at Earl's Court to which you refer, which, I think, had no State recognition at all. They were organised as a private enterprise, and made a good profit when the weather was fine?—The Italian Government gave assistance. In the first Exhibition it put transports at the disposal of the exhibitors free of cost, and gave Custom facilities and so on, to enable them to develop trade here.

1073. You have told us that exhibitions afford an important means of advertising and enlarging business in an exceptional way; if that is so, do you not think the trader should pay to some extent for his advertisements?—In what way do you mean?

1074. Take, for instance, St. Louis, where the cost of transport and installation was all borne by the Government; do you not think that if the trader gains a good advertisement he should pay a larger share than he has done in recent cases?—Certainly. One point I would like to bring before the Committee is the importance of advertising. The Milan Exhibition was very little known in this country. The Press took no notice of it, we did not subsidise them or advertise, or do anything to induce them to write up the Exhibition. From that point of view I think that it would be a very good thing that a committee such as I suggest, when formed, should advertise and make better known these exhibitions, and so give our people an opportunity of showing.

1075. I am not quite sure that you understand my point. You look upon exhibitions as a means of advertisement either of the country or of the individual largely, do you not?—Yes.

1076. So far as the exhibition is an advertisement of the individual, ought not the individual to pay a large share of the expenses, or do you wish that it should fall upon the State?—I think the individual ought to contribute.

1077. Therefore you are only in favour of a limited State assistance to exhibitions in the way of money?—That is so.

1078. And you do not advocate large grants, such as were given to the Paris and St. Louis Exhibitions?—Not so large as the St. Louis grant.

1079. Can you indicate the extent to which you think the Government ought to pay for participation in exhibitions?—It is very difficult to say; it depends so much upon the distance of the exhibition and the opportunities offered for trade in the country. In the case of Milan we got the space at one price, we got it cheap from the authorities, and we sold it at a higher price, and the exhibitors had to pay the cost of transport, installation, and various other charges, which were very high indeed. But if you have an exhibition in America you cannot put it on the same footing as one that you have in Paris or Brussels.

1080. Is it your view that the individual exhibitor should not be relieved of all the expense of exhibiting?—Yes.

1081. Then you say that England must take part in any and all international exhibitions. Does not that

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open a very wide field for expenditure? Do you mean that we must take part in every international exhibition, however big or however small?—No. An international exhibition would necessarily be on a large footing if it were really international.

1082. The Exhibition at Earls Court is called international, is it not?—I do not mean that Exhibition. I mean an exhibition which is international in the sense that all the nations co-operate. At Earl's Court they have a particular nation every year, and they do not have all the nations combining. An international exhibition means, of course, one open to the whole of the world.

1083. I fancy the organisers of every exhibition in which the world generally is invited to participate call them international; for instance, we have received invitations to take part in an International Maritime Exhibition at Marseilles, and the New Zealand Exhibition is called international?—That is so.

1084. In fact, nearly every exhibition in which more than two or three countries are asked to join is called international?—Of course, you have to study the merits of each exhibition, and this body which I suggest should be formed would have to decide whether it is worth this country's while to exhibit.

1085. Are you clear that the benefit derived from such participation is so signal that it justifies the Government in spending a large amount of the taxpayers' money for the purpose of participating?—Only from the point of view, as I said before, that this country must not be left out altogether.

1086. Would not a wise selection be possible, so as to confine our participation to a few of the leading exhibitions, as we have done in the past?—Yes.

1087. You do not contemplate an extension of our activity in the future, but rather better organisation?—It has always been done in a half-hearted sort of way, I think. The Government has never been disposed to take part in any exhibition.

1088. I am speaking of the money side of it now?—I mean the money. For instance, in connection with the Milan Exhibition there was the greatest difficulty to get any money out of them at all.

1089. I was trying to arrive at some indication of the ultimate expenditure which we should have to incur, because it may assume very serious proportions, and with the income-tax at 1s. that is an important consideration?—I am not in favour of spending large sums, but if the work is placed in proper hands it can be done on economical lines.

1090. (*Mr. Algernon Law.*) You said that all the countries who participated in the Milan Exhibition, even those who were well organised, were disappointed with the result; do you not think that justifies the Treasury in their reluctance to come forward in the case of Milan?—I do not think it necessarily follows that they are not going to do trade there. I am speaking of the actual things which they exhibited. It is very possible that these firms may cultivate relations and develop business which they never had before; but the actual things sold from their pavilions or from the various stands I do not think were very important.

1091. Did the other foreign countries spend much money on their pavilions? Were they extravagant buildings like those at Paris and St. Louis?—There were some fine pavilions, the Belgium pavilion, for instance.

1092. Do you attach importance to a large or extensive pavilion as a means of bringing success to the British exhibitors?—No. It is all a form of advertisement, but I do not think it is at all necessary.

1093. You have spoken of the French organisation, but is not the success of the French in exhibitions largely due to their superior taste, generally speaking?—Certainly.

1094. And the attractive way in which they make up things?—That is what this very society of theirs does. The whole of their exhibits are decorated throughout the exhibition in the same way, and they are very effective. Their show-cases are all alike, whereas our show-cases are all sorts of shapes, heights, and conditions—old things that they had in the first exhibition are still used at exhibitions nowadays. On the other hand, the French Committee have a uniform set of cases, and they make their exhibits look far better.

1095. How many years has the French Committee existed?—I think since 1891.

1096. In the Great Exhibition of 1851 it was remarked that though we were ahead in manufacturing and other solid matters, in regard to taste we were far behind the French?—That was before my time, but in any case I think that is very likely, because the French taste is proverbially good.

1097. The difficulty as to starting the organisation being a temporary one, did you communicate with the ex-secretaries of the Paris and St. Louis Exhibitions to pick up their material, as it were, to assist you in going forward with the Milan Exhibition?—No, except that one of the gentlemen attached to the St. Louis Exhibition is with us, and I got the benefit of his experience. He is Mr. Cundall, and he has been on many exhibitions.

1098. Was there a scrambling for awards at Milan? I think I understood you to say that you could get as many as you wanted almost?—I do not say that quite, but I do think that if a man is sufficiently persistent, he can do something.

1099. So that the success of a country is very much due to the persistency of the gentlemen who organise its exhibits?—No, I will not say that either, but I do say that these awards are given too lightly.

1100. (*Sir Isidore Spielmann.*) I think you said that when you arrived at Milan you found much of the space taken by other nations?—We were invited to take part in this exhibition months before we actually accepted. We could not take any space until we had a Government grant.

1101. Then this difficulty was caused by the fact that you started late?—It arose because we started so late.

1102. Can you tell us how much later than other nations you signified your adhesion?—The French exhibitors, I think, had done so one or two years before. Immediately it was decided to have an exhibition, France came forward; I think that was in the year before.

1103. Do you happen to know if England was the last country, or the last of the great countries, to signify her adhesion?—Yes, she was.

1104. How much later than the others, do you know?—Many months, in some cases. I think Belgium came in just a little before us, and she built a special pavilion, which was a very handsome one.

1105. Otherwise we were the last, or thereabouts, were we?—I think we were the last of the greater nations. There were some after us of the smaller nations.

1106. And do you think that cost you a great deal in the way of hampering your success?—I think it cost us a great deal in not getting more exhibitors.

1107. (*Mr. Malcolm Ramsay.*) Is it the case that you were first of all refused by the Treasury?—Yes.

1108. And you came back subsequently with a later application, which was granted?—The application went on continuously; it was refused, but subsequently the Treasury said they would give us £10,000. That was about two months afterwards.

1109. (*Sir Isidore Spielmann.*) Do you think that the popularity of the London Chamber of Commerce, or the reverse, had anything to do with your succeeding or failing in obtaining exhibitors?—I think it had nothing to do with it. I think, considereing the apathy that exists among British manufacturers and the short space of time that we had, we did remarkably well.

1110. Do you really think that the influence of the London Chamber of Commerce is sufficient to obtain the adhesion of the most important firms?—It is very difficult to say. The London Chamber of Commerce, as I said before, did not do this work, but a Commission was formed, and some members of the Chamber of Commerce belonged to that Commission, but it was absolutely independent.

1111. Do you not think that the fact of your writing from the address of the London Chamber of Commerce influenced it?—I do not think it had anything to do with it. In the first place, as I have explained to you, it is a large building, and there are many other people in that building beyond the London Chamber of Commerce. It cannot be said to make any difference, I think, if you have "2, Oxford Court," or "The

Treasury," on your paper as to whether the exhibitors come in or not.

1112. I gather you would recommend the French system, under the control of the Board of Trade?—I would not say under its control. I would suggest that a body should be formed representative of the manufacturers and combined with official representation. This body should always go to the Government and suggest what should be done.

1113. In reply to the question, "In what way do you think the defects could be remedied in the future," you summed up, I thought, by recommending the organisation of exhibitions under a department of the Board of Trade?—No, I said with their co-operation, I think.

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1114. Then you recommend the French system, but with the co-operation of the Board of Trade?—Yes, that is what I suggest.

Mr. IMRE KIRALFY, called, and examined.

1115. (*Chairman.*) I would ask you first what has been your connection with exhibitions—it has been very large, I think?—Yes, it has. Ever since 1867 I have taken a great interest in exhibitions. During the exhibition of 1867 I was nearly the whole of the time in Paris, and I went there twice or three times a week. Since then I have taken great interest in exhibitions; I have managed a number, and I have advised on five or six. I advised on the St. Louis, Buffalo, and Liège Exhibitions before their foundation.

1116. Did you advise in connection with getting people to exhibit, or in connection with the organisation?—In connection with the general organisation; but in regard to the Liège Exhibition, I was particularly interested in getting exhibits. I had the direction of the British Section there.

1117. Were you on the Committee?—I was the Commissioner-General of the British Section at Liège.

1118. Did you apply to people for exhibits?—Yes.

1119. Have you formed any opinion as to the effects of exhibitions on the manufacturing and exporting trades in this country?—Yes.

1120. What is your opinion?—My opinion is that if the exhibitors unite, as they do in other countries, then unquestionably great benefit ought to result; that is to say, if they display their goods in a manner which is attractive to the public.

1121. As regards British Art, do you think the same?—British Art should be included wherever Great Britain participates in an exhibition. I think it is the greatest possible mistake to undertake to have a British Section at any exhibition unless British Art is represented.

1122. As regards the general commercial relations between the countries concerned, do you think that an exhibition has a good effect or a bad effect?—It must have a good effect. I may have to repeat myself, but if the exhibits are placed in a proper way, the result must be beneficial. Of course, social and commercial intercourse between nations must have a good result.

1123. To carry that a little further, as regards the particular industries or classes of industries which have been benefited, what should you say were the chief?—It is very difficult to decide, because some goods which may derive benefit by exhibition in one country would not derive benefit by exhibition in another country; consequently to make it a success, it would be necessary to study what exhibits should be displayed in a given country in order to have the best advantage from the exhibit.

1124. Do you consider that an exhibition has much effect on the trade in the ordinary staples of commerce, or in any new specialities which one country makes sooner than another?—Of course, it has a particularly good effect in regard to any new specialities; but I think that it ought to have a good effect in every class of exhibits, so long as they represent goods which are acceptable, and goods in which there is a chance of doing any trade with the country in which the exhibition is held. It is useless to exhibit anything which is inferior.

1125. The other branch of my question was whether it is your opinion that exhibitions have much effect upon the staples. By staples I rather mean, for instance, a great many of the cotton fabrics, as opposed to new things, such as motors or india-rubber goods of various kinds?—It depends in which country they are exhibited. I think cotton fabrics in some countries would be attractive, and would bring commerce, whereas in others they would not. In a matter like this, the Chamber of Commerce, in the particular country ought to be consulted always as to what it is best to exhibit and what it is best to avoid in exhibitions.

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1126. I suppose your experience has been rather more in the general get-up and toilet of the exhibition than in the arrangements of the special exhibits?—Yes, because it was always difficult to obtain exhibits. The reason that it is hard is because there is no organisation. You have to apply to every exhibitor individually, and that is a very hard thing to do. I remembers that at the time I took the matter of the Liège Exhibition in hand I wrote something like 200 or 300 letters, and out of those I think I received four or five replies only.

1127. Except at Liège you have not had much experience in industrial exhibiting, have you?—I have had experience at Earl's Court.

1128. But you would not call that an international exhibition, would you?—No.

1129. From your experience, do you consider that the interests of any industry or classes of industry are adversely affected by exhibitions?—I certainly do not think so.

1130. Do you consider that the direct commercial results obtained by the official participation of this country in international exhibitions have been such as to warrant his Majesty's Government in giving grants for the organisation of British exhibits in future?—I am afraid in the past not, but I think by proper organisation in the future the Government will certainly be justified in supporting it, and giving grants.

1131. Do you think that equally satisfactory results could be obtained by private enterprise?—No, not at the start. There is in France an association which is called *Le Comité Français des Expositions à l'Etranger.* The Society was organised for the purpose of promoting French exhibits abroad some twenty years ago. The manufacturers first started that for themselves, but finally it was found to be such a useful organisation that the Government gave it its patronage. Now, whenever there is an exhibition the Government always goes to this Society, and asks them whether they think it worth while participating, and if they say yes, they give considerable grants. At the Chicago Exhibition in 1893 they gave 4,089,700 francs, and the French Section covered 41,627 metres, and they had 2,762 exhibitors. At the St. Louis Exhibition in 1904 the Government gave only 1,460,000 francs, which was entirely used for their own representation through the Commissariat, and the French Committee virtually received nothing out of it. They occupied 76,720 metres, and they had 7,212 exhibitors.

1132. That shows that by giving them a good start, and supporting them at first, it finally comes down to this, that the Government has to give very little?—Yes.

1133. Then you think that this French society has helped to relieve the French Government of payments to exhibitions?—Yes, I do. I think that a similar institution founded in Great Britain would perhaps not have quite the same effect, but would considerably reduce the grant which the Government would have to give. I think it would be necessary, in order to do this, that the Government should start a similar association. A body of merchants and manufacturers could be organised here, which would enable them to instal themselves—that is, to get the plant and to get uniform show cases; in other words, to get what I call a regular working plant good for travelling, so that they could go to any exhibition wherever the Government may want to send. Once they have this organisation, they would be in a position to go anywhere; and, of course, afterwards the expense would be reduced.

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1134. Would you let them have the conduct of the expenditure of the country?—Yes, under the supervision of the Board of Trade. I think the Board of Trade ought to have control, the same as the French Government has the control of this French Committee.

1135. Not only that they should be represented on the Committee, but that they should have absolute control?—Yes; except as to minor details, it ought to be under the control of the Board of Trade, or of a Minister of Commerce.

1136. To whom would you give discretion as regards the exhibits?—There would have to be special committees. In France, under this Society, they have first one central committee, and then they have group committees, probably twenty; and these group committees have under them again sub-committees for the different classes. When they secure space in an exhibition, this central committee buy it at a certain price per metre, and then afterwards sell it to the sub-committees for a certain higher price, the difference being their working expenses. They then organise themselves into small groups in an artistic way, and charge the exhibitor still a higher price, but at the conclusion of the exhibition whatever profit is left is all redistributed to the exhibitors—that is to say, all this is done without any personal gain to anybody.

1137. But at the same time the exhibitor has to pay rather a high price, has he not?—Yes, he has; but, on the other hand, he has no trouble whatever. He has not got to insure his goods, he has not got to look after the transportation, he has not got to store them, he has not got to look after the show-cases; in fact, he has not got the slightest trouble. The goods are taken from his place, transported, installed, and looked after. There is a man to look after them, and, indeed, there are a number of people looking after their commercial interests. They try to stimulate trade, and they look after the interests of the exhibitor in every possible way; and when it is figured out what it will finally cost him, he finds that probably he has saved half the expense, and has got probably ten times the result, roughly speaking. He has no trouble; simply, he pays so much a metre for his space, and his goods are displayed in the best and most artistic and tasteful way.

1138. Would the Committee favour the goods belonging to their own members?—That is where I think the Government would have to come in, and where there should be Government supervision, so that there should be no preference given to anybody. This French Committee is composed only of those merchants or manufacturers who have obtained not less than a gold medal at any exhibition. They must be legitimate exhibitors; they do not admit any others.

1139. Is that a rule of the Society?—Absolutely. Nobody can belong to the Society unless he has obtained at least a gold medal at a previous international exhibition.

1140. And then he is allowed to belong to the Society, paying a subscription of 25 francs or 50 francs a year?—Yes; the subscription is probably 25 francs, or something like that. It is a small fee, just sufficient to pay the small working expenses. When an exhibition is being promoted the various groups are called together; the merchants or manufacturers of the same class meet, and decide, before it is settled who should exhibit, how much space they want, and how much money to spend, and according to what they think a section ought to cost they fix the prices for the exhibit space.

1141. Are you familiar with the methods in other countries besides France? Do you know anything of the German system, for instance?—I find that several countries, since the establishment of this French committee, have adopted the same system. In Belgium there is a very good society formed, *Le Comité Belgique des Expositions à l'Etranger*. They had a very fine display at Liège, and made an excellent show also at Milan. There is another in Holland, and there are two similar societies, I believe, in Italy; and there is one in course of formation in Japan, in Hungary, and in some other countries.

1142. Are you familiar with the Milan Exhibition of this year?—Yes, I visited it.

1143. Were you on the Committee?—I was only on the General Council.

1144. I suppose you have seen so many exhibitions that you are rather a judge of the comparative excellence of exhibits?—I must say I was not very favourably impressed.

1145. With the Exhibition as a whole, do you mean?—The Exhibition as a whole was very good.

1146. With the British Section, then?—Yes. I do not believe anybody is to blame; I think it is simply the system that is to blame. The Commission did all it possibly could to get the exhibitors to come together at the last moment, but it was almost impossible.

1147. Do you think that our failure or comparative failure was owing to our being too late in getting space, or in getting exhibitors?—You have just drawn my attention to a point about which I may be able to give interesting facts. I have made some inquiries from this French Committee with which I have been connected for some years, and they told me that when it was first mooted that there should be an exhibition at Milan they sent a deputation at once to that city. That was two or three years ago. Their deputation saw the Committee there and said, "If you will give us so much space, and the best of it, we will take so many thousand metres, but you must give it to us at our own price." Their own price was a nominal figure, 1½ francs per square metre. They were absolutely in a position to command the price, as against the Milan authorities, and they virtually said, "If you do not give us this you will not have an exhibition, because we will not participate." So that, owing to their being organised, they have been able to be the first ones on the spot, and command terms, whereas we, by the time we have become organised, are too late, and have to take what the other nations leave.

1148. What is your suggestion for remedying that?—There is only one possible means of doing it, and that is to have an organisation on the lines of the French Committee formed as soon as possible. Give them the material to work with, and place them in a position equal to that of other nations. If there is an exhibition going to be promoted, the French and the Belgians send their Committee to the spot; let the British send their Committee also, and unless they get equally good space and on equal terms with the other nations, let them simply say as the others do, "We will not take part in the Exhibition."

1149. Would you let the Committee decide whether a given exhibition was worth participating in?—They would be the very people to do that. They would send a committee of inquiry ahead to study, who would investigate that, and they would advise the general committee or the Government whether it was worth while to participate in the Exhibition.

1150. Do you know anything about the German system of exhibiting?—I do not know it very well, but from what I saw of it at Liège I do not think it is so well organised as the French.

1151. Of course, you are aware that it is much more purely a Government system, the principle being Government selection by Government officials?—Yes. The general result is not so good as under the French system.

1152. Would you take that to be due to the difference in the organisation?—Yes.

1153. Have you formed any idea as regards the arrangement of exhibits by classes, or by the country that exhibits?—I think they should be grouped by classes. It is very difficult to group them by countries, because doing so brings all your exhibits to a certain extent into confusion—I mean as regards a large exhibition, and I am not talking of a small exhibition now. If you bring all your different classes together it looks rather like confusion, but if you group them by classes you can make a very nice effect by having a special court for some particular group or some particular class.

1154. Do you think that exhibitors mind their goods being put in juxtaposition with similar goods of foreign countries?—I do not think that should be done. I think British exhibitors should always have their own group together, in their own court.

1155. Then, you would not put the exhibits under classes?—In the general group of the section they should have their own class, but they should not be mixed with the exhibits of other nations.

1156. If there was a piano being exhibited, you

would not put German pianos, say, anywhere near the British pianos, would you?—The British pianos ought to have their distinct court, and the public ought to be able to distinguish them by going into that separate court, which should be enclosed with a very nice and graceful entrance. When the public go into the British court they should see nothing but British pianos, although the court would be in one building which was altogether devoted to music, and would probably contain in other courts the pianos from other countries.

1157. Then, you would have a separate building for the class, would you?—Yes.

1158. But you would make a distinction between the exhibits of the various nations?—Yes.

1159. Have you seen much of collective exhibits?—Yes.

1160. Do you think the system has answered?—Quite. The greatest result possible is attained by the collective exhibits.

1161. As regards the prizes, what do you think about the present system of medals?—Here we come to a point where I think the British exhibitors are under a great disadvantage. In other countries—let us take France, for instance, because I have more knowledge of the French arrangements—the Government not only gives a large money grant to start the work, but there are other inducements, such as honours and decorations, which the French Government gives to their exhibitors. There are certain manufacturers who have no interest whatever in exhibiting. They are full of work, and they do not want advertisement. But the French section would not be complete unless these people do exhibit, as they are the best makers. As their factories are full of work and they have no interest in exhibiting, the only inducement to get them to exhibit is that there is some honour which may be given to them.

1162. What will that honour be?—I have brought a little list with me of the decorations which have been given in France in 1855. (*Handing in same.*) It shows that the Government treat their exhibitors in the highest possible way. This list is most interesting, and I secured it expressly from Paris in order to show you. These honours are given particularly to those exhibitors who are necessary in an exhibition, without whom it would not be a success, but who themselves have no material interest to be in it.

1163. Do they get them to exhibit by giving them the Legion of Honour?—No. They do not get the decoration at the first exhibition or the second one, but they have hopes that by exhibiting in several exhibitions they probably will get decorated.

1164. I see this list ranges as far back as the Paris Exhibition of 1855, and comes down to the Liège Exhibition of 1905?—Yes. It shows the number of *grands croix*, *grands officiers*, *commandeurs*, *officiers*, and *chevaliers*, which are granted. At Liège, for instance, you see they gave 151 decorations.

1165. May I take from you that these decorations are given simply for exhibiting? Are they not given for other qualifications, as, for instance, for being very large employers of labour?—Yes, and some because they are on the jury; but the greatest proportion are given for exhibiting.

1166. Anyhow, all these decorations have been given to French exhibitors in the exhibitions enumerated in your list?—Yes.

1167. Taking the French Exhibitions, I see that 171 decorations were given in 1855, 230 in 1867, 400 in 1878, 500 in 1889, and 1,169 in 1900; and, in addition, a large number were given to those who exhibited at Amsterdam, Antwerp, Moscow, Chicago, Brussels, Glasgow, Hanoi, St. Louis, and Liège?—Yes. But those figures refer only to the Legion of Honour. Then, there were the Agricultural Orders and the minor Orders. The greatest proportion of all these decorations are given as inducements to pople who really have no need to exhibit, but who are essential for the success of the exhibition.

1168. Are these decorations which are conferred upon people in business used as we here use the gold medal?—No.

1169. Are they not used as advertisements?—No. It is simply a matter of honour and distinction.

1170. Will it not help them in their business to have secured the Legion of Honour?—No. Very few of them would advertise it. It is considered a great distinction—I think it is the very life of a Frenchman—to have the Legion of Honour, and he naturally will make great sacrifices both financially and in labour to obtain it.

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1171. Ribbons are not worn in this country in the same way?—No, but we have probably other things which replace them and are just as serviceable, probably better.

1172. Do you think the medals or the certificates for getting medals are of value to exhibitors?—I have, I think, some 40 or 50 from Liège for which the exhibitors have not taken the trouble to apply.

1173. 40 or 50 actual medals?—Diplomas.

1174. That is, diplomas entitling them to buy gold medals?—No; bronze medals are presented to them, which they can get gilded or silvered, as given in their diplomas.

1175. You have got a number that have not been claimed, do you say?—Yes, because the exhibitors do not think it is worth the trouble of fetching them.

1176. Do you think a distinction like the Colonial Order of the Dragon of Annam, or the Colonial Order of Cambodia would be more appreciated?—I do not know anything about those particular Orders. Some existing British distinction and some commercial distinction, which might be created, would be certainly a great inducement to those who really otherwise would not exhibit. I am recommending it because I see the advantage of it.

1177. I understand you have not had very much to do with inviting commercial firms to exhibit?—Not apart from Earl's Court (where we had a good many firms exhibiting) and Liège. The difficulty to get them to exhibit in London is very great.

1178. In London the business you have had most to do with is that of making the exhibition very attractive, is it not?—Yes, but also of obtaining exhibitors.

1179. But in the case of the Earl's Court Exhibitions, for a good many years it has been some foreign country that has sent over exhibitors, has it not?—Yes, but we had British exhibits as well. We generally have had part British and part from some foreign country. We always have a certain number of buildings devoted to British exhibits.

1180. Take the Austrian Exhibition of this last year; I do not think that was so, was it?—That was purely Austrian. I do not say these exhibitions have all been international, but we have had some which were really international exhibitions. We have had several where other nations took part in, and where the British participated in besides other nations.

1181. Do you think that of late years it has been these extra things which you have conducted so well which have attracted people more than the exhibits and the goods? Do you think it is the side-shows, as the Americans call them, which have attracted the people?—No. The exhibition that depends on side-shows would be hopeless.

1182. Would it?—Quite.

1183. You think so?—For commercial purposes it would be hopeless. The side-shows are very well as an adjunct in order to retain the people a little longer in the grounds than otherwise would be the case, but the exhibits themselves must attract them.

1184. You think the foundation of an international exhibition must be the exhibits?—Absolutely.

1185. And not the side-shows?—No, indeed not. The side-shows are all very well to help in paying the expenses of the exhibition and in keeping the people there longer. If merchants go to an exhibition for the purpose of business they may go round for hours, and become fatigued, but if you can still retain them by pleasant surroundings, music, and attractions of various kinds, there is every possibility that after some rest and recreation they may pay further attention to the commercial and industrial part of the exhibition.

1186. (*Sir James Kitson.*) I would like to ask you, as you have some experience, whether you consider that the heavy manufactures of Great Britain benefit by foreign exhibitions. I call the heavy manufactures marine engines, stationary engines, and locomotive engines, which are very costly machines, you know, to carry and establish. Do you think that those

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manufactures benefit by an international exhibition?—I think they would if they had the artistic surroundings, I mean the decorative surroundings, which other nations have.

1187. When you give that answer, do you consider the cost to the exhibitor of carrying those very heavy articles and mounting them and installing them?—I think in that case the exhibitor should be helped to the greatest possible extent in regard to the expenses. I think where the Government aid towards the expenses should go in the greatest proportion should be just to those exhibitors who bring machinery, the heavy engines, and so forth, to the exhibition.

1188. It might be necessary to do what you suggest, that is, to have a complete international representation, but I am rather asking you as to the individual advantage. Can you tell me any instances where the individual has benefited?—No. I do not think that I have ever inquired into that. Judging from the fact that a certain number of firms of this kind generally follow up exhibitions—going to Liège, to Milan, and to other places, and doing it without any Government aid, it naturally follows that they must have derived a benefit from it. For instance, you will find Armstrongs and Whitworth are at pretty nearly every exhibition.

1189. But you really have no business example to induce me, say, as a man of business to expend the money; you are only giving us a general opinion?—That is so.

1190. I suggest to you that there might be in certain classes of manufacture new developments, such as the applications of machinery to the production of electric power and the applications of electric power. Do you think in regard to those it would be a benefit to the individual?—I certainly think it would.

1191. I would rather suggest to you that instead of giving a general answer you would have to go to a clasification, and that there are individual trades only which would benefit?—Then I think my answer as to that would be that it may be beneficial in one country and at one exhibition, and not to another. What may be beneficial, perhaps, to exhibit at Paris or Berlin may not be so at St. Louis or Chicago.

1190. In the course of your evidence you have said something about having to consider the suitability of the market?—Yes, you must.

1193. Therefore you would not recommend expenditure for a general exhibition without special knowledge?—Certainly not.

1194. You would not recommend the Government to expend its money without having studied the capacity of the market for absorbing the goods that are to be sent out?—Decidedly not.

1195. You suggest that the Government should be very careful in its expenditure in reference to the particular objects that I am interested in, for example?—Yes. I think those considerations would come before the investigation committee which it would be necessary to send to the particular country or place where the exhibition was to be held. Being an independent body, they would advise whether a certain class of goods or a certain manufacturer could participate with advantage or not. Then, if they thought a certain manufacturer should participate, and it did not appear to him to be particularly to his financial advantage to do so, his expenses should be defrayed, as otherwise it would be very costly to him.

1196. (*Mr. Harris.*) I think you told the Chairman just now that you thought the side shows were practically a very small part of exhibitions?—Yes.

1197. Would you follow that up by suggesting that a plain, businesslike, unornamented exhibition is perhaps the ideal?—I would not say that.

1198. You think, then, that there is a point at which decoration has an effect?—I think that to make any exhibition successful you must have music and you must have some other attractions. You must have lectures, and you must have congresses. You must bring people there, and you must entertain them in some way or other. I do not say you must do that as the principal attraction, but it should be a part of the attraction of an exhibition. Of course, the commercial interests and the artistic interests should be the principal consideration.

1199. Imagine for a moment that you have swept most of the side-shows away from Earl's Court, but that you have your lectures, and so forth; do you still think that that Exhibition would form the great attraction that it has been to the West End of London?—For whose benefit—the company which runs the Exhibition, or the exhibitor?

1200. I am thinking of the public generally which makes the Exhibition pay?—I believe the people who come to the commercial part would come just the same, but the general public would not come quite in the same masses; and thus far the company which runs the Exhibition might not find it profitable at all, because these other things help to pay part of the expenses.

1201. Do you think that the British trader generally takes the same view as you? Did you not say that it was rather difficult to get him to send exhibits?—Yes, and I think he is quite justified at the present stage in abstaining from exhibiting.

1202. On what ground?—Because he does not derive the proper advantages which he would have if he were organised.

1203. Then you bring it back to a matter of organisation?—Absolutely. I must always come back to the matter of organisation in order to give the British exhibitor the opportunity to derive proper advantages from the exhibition. I have observed the British sections since 1867, though I was not as much interested in them then as I have been lately. Going to look at the exhibition as a stranger, the British section never made an impression upon me—it never attracted me. Why? Because there was a large show-case *here* and a small show-case *there*, and the exhibitors having paid for their space made the best use of it, and they would not have passages 12ft. or 20ft. wide, because every yard of space cost them so much money; consequently they were reduced to small passages, and had to use as much of their space as possible for the show-cases.

1204. Is not that purely an artistic way of looking at it?—No.

1205. I mean it is not business?—It is business in a certain sense. If you want to attract the public, you must have your goods displayed in such a way that they can be properly seen. If you have a narrow passage such as we had at the Brussels Exhibition, which was about 6ft. wide, and show cases on each side, you cannot appreciate the goods so well as you would in a court where they were nicely displayed and properly surrounded; they do not have the same effect on you.

1206. Had you a British exhibit at Liège?—Yes.

1207. Was that organised under your own control?—The British section was organised first by another gentleman of the name of Cope. He undertook the commissioner-generalship of the section, and I was merely a member of the committee. Shortly before the opening, I think it was about four or five weeks before, Mr. Cope for some reason or other resigned the commissioner-generalship, and the exhibition was secured a certain amount of space—a small, insignificant amount of space at one end of the building. The Committee came to me and implored me to take the matter over. I knew it would be a matter of loss, because whoever took the commissioner-generalship had to bear the cost of any deficiency, and should there be any profit to give it back to the exhibitors. Before I undertook it I wrote, as I mentioned, about 300 letters personally to first-class exhibitors whom we had from time to time at Earls Court and elsewhere—I wrote to only the best ones. The result was that I had about three letters which were favourable. I then, with my sons, worked day and night so as to be able to complete what this other gentleman had commenced. I accepted the position because I knew there was going to be a congress of British merchants and of the Associated Chambers of Commerce and some other bodies at Liège, and I thought it would be rather unfortunate to have an important international exhibition without Great Britain being represented. It was really only for that reason that I undertook to finish what the other gentleman had commenced. But all I was able to do had to be done in the little space at my command. The exhibits which we had I simply systematised, making the passages more direct and doing some decoration so as to make it as attractive as I could under the circum-

stances. But I was not quite responsible for it, as I only took it over a few weeks before the opening.

1208. Supposing you had left it alone altogether and Great Britain had practically stood out, do you think that that would have affected the trade of Great Britain in any way?—I do not know exactly that it would, and I will not say so; but I do not think it would have been a very proper thing.

1209. As a matter of fact were you satisfied?—I think the ultimate result was very good, because we obtained in the British section higher prizes than any other nation, having regard to the smallness of our space and the small number of our exhibitors.

1210. Do you think that was recognised?—I do. In proportion to our exhibitors in that small British section, for which I was only partly responsible, we had 37 per cent. of *grands prix*, France had 15 per cent., Germany 16½ per cent., Belgium 14 per cent., United States 10 per cent., Russia 9½ per cent., and Japan 15½ per cent. I think as far as showing whether we had goods that were deserving of honour we did not do very badly, for we had nearly double the percentage of any other nation. Now of the diplomas of honour we had 27½ per cent., France had 10 per cent., Germany had 14 per cent., Belgium had 14 per cent., the United States had 9 per cent., Russia had 7¼ per cent., and Japan had 12 per cent. Of the gold medals we had 58 per cent., France 22¼ per cent., Germany 35 per cent., Belgium 22 per cent., the United States 25 per cent., Russia 28 per cent., and Japan 39 per cent.

1211. (*Chairman.*) How many exhibitors had we there?—I think 120 or 130.

1212. Much less than the other countries?—Yes, but then you see we did not have the space.

1213. The quality was very good, although the quantity was small?—The quality was very good. I must say that we had taken a great deal of trouble so that the exhibitors should receive proper treatment. A great number of exhibitors did not even have an attendant there to explain their goods. It was left entirely to my two sons and myself. I do not say that we deserve any credit, for we did nothing more than our duty; but at the same time we worked very hard so that the British exhibitors should receive the the honours they deserved.

1214. (*Mr. Harris.*) Could you say that the public generally appreciated that, and that they understood the proportion?—Yes.

1215. You may not have proved it as a fact, but do you think that it was generally understood that Great Britain had made a good show for its size and space?—Individually I think so. Of course I do not say that the general effect was magnificent, because we had not the space or material to make it so.

1216. Were the awards spread pretty fairly as a whole over British trade, or were you very limited in the number of trades that were represented?—Rather limited. We had very good machinery there, and, in fact that which was there was really very good. What I was particularly anxious about, and which I did succeed in, was keeping out the undesirable element which unfortunately is so much drawn into many exhibitions.

1217. What do you mean by the undesirable element?—The bazaar element.

1218. What do you mean precisely by the bazaar element?—Embroidering cambric handkerchiefs and electro engraving with your name whilst you are waiting, and spectacle-testing or eye-testing. Rubber stamps, cheap jewellery, and things of that class.

1219. (*Sir Swire Smith.*) You are in favour of a permanent State organisation for dealing with exhibitions, and under those circumstances you are distinctly in favour of the State bearing the cost, I think?—The organisation I suggest should be under the patronage, or under the supervision of the State, but it must be an organisation of the merchants of the country. I do not mean that the State should organise this special committee.

1220. But you are in favour of the State bearing the cost of the exhibits, are you not?—Yes.

1221. And of course you are in favour of collective exhibits?—Yes.

1222. Under those circumstances the real desire is to obtain the best possible exhibits in every class of industry?—Yes.

1223. And therefore the State, or the organising committee, should make the choice?—Yes.

1224. Sir James Kitson suggested that it would be a very serious matter in the case of large machines, such as locomotives or other steam engines, if the exhibitors had to bear the cost of sending them to places where they might not profitably be sent. In the case of those large things, I presume that if it were considered desirable to have such exhibits the State would bear the cost?—The committee out of the general fund would have to bear it.

1225. In the selection of the products for a collective display I suppose that organisations like the Chambers of Commerce of the country might very properly be brought in?—I think they should be represented on that committee.

1226. I mean that they might be brought in to make, in the first instance, the collections from certain different industries and different localities?—Yes

1227. Have you any idea as to the best methods of getting these exhibits—that is, of securing what you really want? You spoke about the importance of bringing in large or leading firms; of course, it is not a matter so much of the firms as of the goods that you want?—Of course it is the goods we want.

1228. Therefore if the State bears the expense it is very necessary that every facility should be given to people who might not have made a reputation, but who might be younger and more enterprising firms, who would perhaps have good things to show?—By all means. The particular committee of that particular group ought to be the judge of that.

1229. You have spoken about the French Government giving prizes or awards or honours to French firms who exhibit in other countries?—Yes.

1230. And you recommend that the same should be done here?—I put that forward very modestly. I only mentioned it as one of the reasons why the French are successful.

1231. If an exhibition is to be held in some other country in which it is very desirable that certain British exhibits should be seen, would you try and make it worth the while of the firms who could exhibit them to send an exhibit?—I do not believe they would expect any promise, or anything like that, but if a firm exhibited in one or two or three places and made a very fine display, and so helped the British section, I think there should be some honour for them to look forward to.

1232. Then really such means should be adopted as would secure the result desired?—That is it.

1233. (*Mr. Algernon Law.*) In the case of Liège did you have to make personal application to induce these firms to come in after you had written to them unsuccessfully?—Yes, I had to send agents travelling round and soliciting everywhere.

1234. In the case of Liège, the Government gave no grant, I believe?—The answer was that the Government were not then in a position to give any grant. A deputation waited on the Minister, and he said that they could not at that moment spare the money.

1235. Do you think the fact that the Association of Chambers of Commerce was going to Liège had any effect upon the authorities of the Exhibition in giving you a larger number of awards than they otherwise would have done?—No. But it had the effect, I may say, of inducing me to become the Commissioner.

1236. Do you know whether any business followed to the firms who exhibited? Did they gain any increase of trade in consequence?—I have made inquiries, but the exhibitors are very careful, and they will not give any information. I know in one particular case of a firm who are producers of metallic tubing, when the jury went round, one of the jurors gave them a very large order. I was told that at the time.

1237. Was there any heavy machinery at Liège?—Yes.

1238. I think you mentioned that Messrs. Armstrong were there?—Yes.

1239. Do they always send to these exhibitions?—Yes.

1240. Do they send heavy machinery?—Yes.

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1241. Do they find it worth their while?—Yes. There were probably half a dozen or even a dozen firms who exhibited machinery in that section.

1242. Were there other instances?—Yes, there were several firms, but unfortunately I have not brought the particulars with me of the exhibitors in that particular class. I will send it on if you will allow me*.

1243. Do you find that an expensive pavilion is an important part of an exhibition—I mean a pavilion such as we had in Paris, which cost about £22,000?—I do not think that was a very great benefit, having regard to the way in which it was arranged. It had to be done because every other nation did the same thing; but, generally speaking, I think certainly we ought to have something better than there was at Milan. The British Commissioner ought to be represented in a dignified manner in some building of importance. I think a little money justly and fairly expended in this direction at Milan would have been fairly beneficial.

1244. (*Mr. Malcolm Ramsay.*) I should like to ask you a little more as to the benefit which trade derives from exhibitions. I conceive that the benefit may accrue in one of two ways—either generally by the promotion of good feeling or by the actual orders that individuals get. Under which head would you say that we have benefited most?—It ought to be by properly developed commercial relations—that is, by the business done there.

1245. By the actual number of orders that firms get?—Perhaps I may here be allowed to remark that I have made some inquiries on this point. I wrote personally to all the British Consuls in France some time ago, after the Liège Exhibition, because I wanted to know in what way British commerce could be improved in France. Of course, I am not at liberty to mention the names of any of these Consuls; but, generally speaking, they say the great difficulty is that we are not represented by proper salesmen or by proper agents. The representatives of our manufacturers do not speak the language, they do not put forward the goods in the proper way, and they do not advise their principals at home in what manner they could improve their goods so as to meet the demand of the foreign country. The same difficulties occur at the exhibition itself. It is in this direction that I think the organisation which has been suggested could do very much to help commerce. If there is a proper system to bring the goods before the people properly, it makes all the difference. Then it is very seldom that a man who wants to buy can find anybody on the spot to give him particulars. All that could be avoided by organisation.

1246. Do you think that the main justification for participating in exhibitions is the benefit to the individual?—Yes.

1247. Do you think that the individual merchant gets a better advertisement by going to an exhibition than he does by employing his own methods of advertising on his own account, independently?—I think the best possible way of advertising, and the cheapest way of advertising, is in an exhibition.

1248. I should like to know a little more as to your ideas on the part the Government is to play. If an exhibition is an advertisement for the individual trader, ought not that trader to pay the larger part of the expenses incurred by his participation?—No, but I think he ought to pay his due proportion. The actual benefit may not be derived at once, and he individually may not get the benefit for some time or at all.

1249. We have been told that in the case of the exhibition at St. Louis the Government grant paid a large proportion of the expenses of the exhibitors—for instance, the cost of transportation, insurance, and, I think, space; do you think, on your theory, that it is the duty of the State to advertise the goods of an individual free of cost?—I think so, to a certain extent. It ought to be a part of the duty of the commercial department of the Government to help the trade of the country all it can.

1250. Would you say that the Government help ought to go further than providing the organisation which will enable the trader to take the greatest advantage of the means of advertisement offered?—I have prepared some notes as to how the Government grant could be best applied. I think the Government grant should be applied first to organise the body to prepare and elaborate decorations and installations for groups and classes, and then it should be applied to lessen the exhibitors' expenses, but it must be left to the committee to say which exhibitors and in what proportion. Then I think that in most of the cases there should be a contribution towards the cost of space and freight; I think the exhibitors should be helped in that direction. Then there should certainly be in every exhibition a commercial bureau. That is a subject which I have not mentioned up to the present, but I think it is an absolute necessity that a commercial bureau should be attached to every British section whenever British manufactures and industries are exhibited in an exhibition.

1251. (*Chairman.*) There was one at Paris, was there not?—Yes, and it was very successful. Speaking from my own experience, I have gone to exhibitions and have wished to secure certain goods or articles, or whatever it may be and I have found that I have been able to obtain scarcely any information anywhere, except in the case of the last Paris Exhibition. If the British section had a bureau attached to it like the one at Paris, I think it would be of the greatest possible benefit not only in the case of the exhibits which are actually shown, but in the case of other British products which are not being exhibited, because the bureau could give information upon them too. Consequently, I think the Government support would be helpful in this direction also. My last point under this head is that the Government grant should be used in taking our artisans to the country where the exhibition is held. I think that is a very important point, and one which should not be left to be organised at the last moment. It ought to be known that funds would be available as soon as it is decided to exhibit, so that it could be at once arranged in the different parts of the country that artisans should be sent to the exhibition in order that they might learn as much as they could about the manufactures and products of other countries.

1252. Do you suggest that we should accept any and every invitation to participate in an international exhibition?—No. Like this *Comité d'Enquête* in France, there should be a committee of investigation here composed of quite independent gentlemen who have no particular feeling one way or the other, who should go over to the country where the exhibition is to be held and should study the question on the spot, consulting with the Chamber of Commerce and others; then when they bring back their report, it should be considered whether it is worth the while of this country to exhibit or not.

1253. Of course the participation of this country in international exhibitions involves a considerable amount of expenditure?—Yes, it does.

1254. Do you think if the Government wish to spend a sum of money for the benefit of trade, it would be most usefully spent in participating in exhibitions, or in some other form?—I really candidly think that up to a certain amount you could not possibly spend it better than on exhibitions.

1255. Turning to another point, did I understand you to say that the great desideratum at exhibitions is quality rather than quantity?—Yes.

1256. Therefore it is better to spend, say, £50,000 on a thoroughly organised exhibit, which includes only the best firms, than to spend £100,000 on a larger and less compact exhibit?—That would be so; but at the same time you must consider that you may be able to display the better goods to better advantage by spending a little more money and by letting them occupy a little more space.

1257. But more good is done perhaps by a small exhibit of the first-class than by a large exhibit of the second or third class?—I absolutely agree with that. Quality must be the essential. At the same time, you must make an equally large exhibit as the other nations with whom you come into competition. It would not do for Great Britain to be always taking a smaller amount of space than other nations.

1258. (*Mr. Wilson Fox.*) You said just now that you think an exhibition is the best form of advertisement; as a matter of fact, does a manufacturer get much

* The firms were E. Green and Son, Ltd., W. and T. Avery, Ltd., Alfred Herbert, Ltd., Thos. Robinson and Son, Ltd., The Linotype and Machinery Co., Ltd., The Premier Boiler Tubes, Ltd., The United Flexible Metallic Tubing Co., Ltd., Reavell and Co., Ltd., &c.

advertisement out of sending a somewhat expensive exhibit to Milan?—I do not know about Milan. Italy is not a very rich country.

1259. Or to Liège?—Yes, I think a considerable amount of business was done at Liège.

1260. Did many English people go there to see the exhibition?—There was a considerable number there. Then, of course, it would get an advertisement amongst the visitors from other nations.

1261. Is it rather among the foreigners that you think it is such a good advertisement?—Yes. It creates new business relations.

1262. Have you got evidence that it has done so, or are you merely giving us your general impression that it might do so?—I have examined the reports of the various exhibitions, and I have found that in the case of other nations there has been almost always, I will not say invariably, an increase of business after an exhibition. It is only in the case of our own country that it has not had the same effect.

1263. You find the British manufacturer reluctant to show, do you not?—Yes.

1264. Apparently then it is not his opinion at the present moment that this is the best form of advertisement?—That is so. But he holds his opinion because he has not had the same opportunity as the foreigner, and he will not have the same opportunity until he gets organised.

1265. Do you think then that it is purely a question of organisation?—I assure you I have studied the subject most carefully. If the British manufacturer exhibits under the same condition as other nations, it will make the greatest possible difference to him.

1266. Do you not think that some of our large manufacturers would be alive to that, if they thought it was worth their while?—Has anybody taken the trouble to study it?

1267. We have got some very large and powerful manufacturers in this country who thoroughly understand the art of advertisement, I think?—Yes, we have.

1268. Do you not think some of those large firms would have combined and shown abroad if they thought there was business in it?—Probably. At present, as far as I can see, opinion is divided; some say it is a very good thing, and others say it is not.

1269. I should have thought that if there was business in it, the keenness of our own manufacturers here would have led them to adopt the practice. It has been suggested to us by several gentlemen who have been interested officially in exhibitions, that it is such a very good form of advertisement; and, therefore, what surprises me is, that the British manufacturers whose interests are paramount in this matter, have not seen these things for themselves, and have not come to the conclusion for themselves that this is the very best form of advertisement?—Perhaps those manufacturers do not need to go outside for work, perhaps they have plenty to do here. They may just come in the category which I mentioned before.

1270. Do you think that the big ones can take care of themselves, but that you have got to spoon-feed the small ones?—The big ones may have all the work they want, but still their presence is essential in order to make the whole exhibit an effective one.

1271. You have had a great experience in exhibitions; have you ever been really satisfied with the British exhibit in any foreign exhibition?—Frankly speaking, no.

1272. Are you in favour of Great Britain taking part in a very considerable number of foreign exhibitions, or in only a few foreign exhibitions, and then making a good show?—Only in the best ones, and then making an excellent show.

1273. Do you think that if Great Britain took part in too many foreign exhibitions, British manufacturers would get more tired of showing than they are at present?—It does not seem to be the case with the French. They had 7,200 exhibitors at St. Louis, and surely there was no special reason for them to go to St. Louis?

1274. Then do you not think that there would be a danger, if we took part in an international exhibition abroad every year, that our manufacturers might cry a stop?—With organisation I do not think there would, because they would not have the same trouble, nor would they have the same expense.

1275. With regard to the organisation, you do not suggest that in these combined exhibits the British manufacturers should lose their individuality, do you?—No. By a combined exhibit I mean that the goods should be in one court, no matter if the court should be only as small as this room. Each firm should have its own exhibit, but similar classes should be grouped harmoniously together, so as to make them entirely attractive.

1276. I understand that a large firm prefers to show an exhibit, complete in itself, of the whole of its goods; for instance, if you take a large furniture manufacturer, he would want to show his bedsteads and chairs and tables and the rest of his furniture in one exhibit?—Quite right, too.

1277. In your plans for a combined exhibit, do you not contemplate any alteration of that?—Some firms, like those engaged in decoration and in the manufacture of furniture, would have to exhibit separtely, but they would do so amongst classes of the same kind.

1278. I put it to you that some of our large traders would object to show, if the individuality of their firm was in any way destroyed?—And they would receive no advantage whatever from their exhibit, if it were exhibited in that way.

1279. Probably you are the greatest expert on this particular point; do you think an international exhibition, run, for instance, by yourself, could be made to pay without any Government grant?—Not at the start; it would be quite impossible.

1280. Could you contemplate an international exhibition, say in this country, being run so well from start to finish, that it could be made to pay without any Government grant at all?—I do not think so.

1281. You do not think it could?—No.

1282. You do not think that the entrances, and the amounts that would be obtained for the catering, and the advertisements, and so on, would cover the cost?—No. They would have to receive money for the space in which to exhibit in order to pay part of their expenses, and the exhibitor must have support from the Government to some extent, in order to enable him to exhibit properly.

1283. But really good organisation, from start to finish, would, I suppose, decrease the amount that would be required from the Government?—Yes. I have really studied this particular point very carefully, and I think that if the Government would see fit to give an organisation like this, at the start, a sum sufficient to enable them to what I call instal themselves properly, it would be worth doing. They could have a big shed where the exhibitor could place his complete exhibit, like a rehearsal. He would see the thing installed in London, or in his own place, where you could have the show cases and the packing cases, and everything arranged for travelling, just as is done by the French people, only I am going further than the French, because the French have not got a room or a hall where you could see the exhibits beforehand. But if you could have what would be practically a dress rehearsal here before sending the goods to the exhibition, I think we could make the greatest success of it that has ever been achieved. Then every exhibitor without going to St. Louis, or to Berlin, or wherever the exhibition may be, could see his exhibit installed in his own place perhaps, and he could give his directions to the man who, on behalf of the committee, had to take care of them, so that everything could be properly done. In that way he would know that the goods would be properly displayed. I think something of the kind has been done, and very successfully done, in connection with the fine arts at one of the exhibitions.

1284. Do you think the largeness of the grant which the Government is sometimes asked to pay, is partly owing to bad organisation?—If I have been correctly informed, the grant at St. Louis was £150,000, and at the last French Exhibition £125,000. I think those grants were excessive. If you were at the start to give this organisation £50,000 or £60,000, say, to organise properly, I think that finally things would so shape themselves that, like the French, you would not have to come upon the Government for anything, except perhaps fine arts, education section, and agriculture.

1285. You mentioned one other thing that I should

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like to ask you a question about, and that was the selection of goods for particular markets. I understand you would attach importance to that?—I think so, in justice to the exhibitor. It is not fair to make him exhibit goods in a country in which they produce the same goods, but of far superior quality. There would not be a chance of his getting an advertisement over it, or if he does get one, it would be a bad one, and he would get no trade whatever.

1286. Then some regard should be had to the tariff in the particular country in which we are showing, should it not?—Yes, where there is no chance whatever of our doing business, certainly. If the tariff is so high that there is no possibility of doing business, then it would be useless exhibiting the goods there.

1287. You said you thought some money ought to be spent in sending artisans from this country to a foreign exhibition. If money is to be spent in that way, would not artisans from the iron and steel industry, say, learn more by the money being spent in taking them round some of the American shops for instance, and showing them how the industry is being carried on there, than by taking them to exhibitions and showing them the completed article under a glass case?—I think it would be very well spent in both ways. If you could get the Americans to let the workmen go in and study their methods as carefully and as quietly and as long as they would have the opportunity of studying at an exhibition, where a man can stand for hours and hours before a particular piece of machinery, I think it would be very well, and I think it would be money spent to the greatest possible advantage. I have followed this idea up, and thought of the way in which those men would be stimulated. They are the men who really make the inventions and improvements in our goods. If they see something fresh every time, it would help us enormously.

1288. There is one thing I want you to make quite clear; what sort of exhibitions do you think England should take part in—only the large international exhibitions, should you say?—Those principally. The smaller ones must be studied, as I have said, by this committee. The Bordeaux Exhibition, for instance, may be interesting to certain classes of our goods, but it may not be important enough to make a great display advisable, although it may be sufficiently important to make it worth while to send a good show of certain of our goods. It is very hard to define exactly where to participate and where not.

1289. As I understand the result of your evidence, it is this: that with proper organisation, international exhibitions might be made a valuable advertisement for commercial men?—With proper organisation, I feel positive of it.

1290. And that with proper organisation the expense to the British Government need not ultimately be great?—It will become finally almost nil.

1291. (*Sir Isidore Spielmann.*) How long after other countries did England make a start at Liège?—It was at the end that we started. We did not start till probably eighteen months or two years after some of the other countries.

1292. Did you find the chief space occupied?—Everything was occupied.

1293. Was it on account of the late start that you failed to get good space?—It was on account of lack of organisation. If we had had an organisation with authority to go to the spot and investigate the matter at once, I do not see why Great Britain should not have been as well served in regard to space as France.

1294. We have been told by other witnesses that there is a considerable feeling amongst manufacturers that by exhibiting in foreign countries their goods are copied; what is your experience?—I think it is a great mistake. If foreign countries want to copy our goods, they have many means of getting the patterns without having to wait for an exhibition. I know some manufacturers say, "I will not exhibit, because if I exhibit at a certain place they will steal my patterns or steal my design." I am not referring to any particular nation, but if some manufacturer in a foreign country wants to copy an article, he will find plenty of ways to do that, even if the maker does not display it at an exhibition. He will probably send somebody into the factory by payment, or he will try to get patterns of it, or he may look into a shop and get patterns of it there. In that way, long before the manufacturer may have a chance of exhibiting the article at an exhibition, his patterns have been sold in Germany, say, or elsewhere. I think if a man exhibits at once he would gain great benefit from it, because he would have the opportunity of getting business and selling his goods before the other man has had a chance of copying him.

1295. You have told us that you have invariably been dissatisfied with the British exhibits at various exhibitions; does that apply to the art sections?—No.

1296. You did not mean it to apply to the fine arts?—No. I must apologise if it seemed to be so. I will not say that I have been quite dissatisfied, but I will say that the British exhibit has not impressed me. As far as the art exhibit is concerned, I believe our art exhibit at the Brussels Exhibition was the finest that ever was made. When we do produce art, it is produced in a magnificent way, and that we really ought not to exhibit anywhere unless we have an art section. It is a great pity to have British participation without an art section.

1297. Under which department in France does the society of which you have been speaking come; it is not under the Minister of Commerce?—Yes.

1298. If the organisation that you recommend were established here, under which department do you think it ought to be?—It ought to come under the Board of Trade; and if I may be allowed to say so as we have no Minister of Art, I think art would also have to come under the Board of Trade, because the same grant would have to cover art as well as the commercial part of the business. I omitted to say that this committee in France has been so successful that lately a Colonial Committee for exhibitions has been formed similar to the Commercial Committee, and also an Agricultural Committee, so that they have now three committees for these purposes, or you may say four committees—for art, commerce, agriculture, and the Colonies.

1299. You are aware, I suppose, that in France art is not exhibited under the Ministry of Commerce?—No, it is under the Ministère des Beaux Arts, but we have no similar department here, so I presume it would have to come under the Board of Trade.

1300. (*Chairman.*) Which exhibition of modern times would you say has been the best in your experience?—The Paris Exhibition of 1900.

1301. In that exhibition which were our particular failings?—I do not say that we have particular failings. I simply say that our goods are not displayed in such an attractive manner as to draw the attention of the general public and of the probable buyer to them. I am not complaining of the exhibits themselves—no, I am far from doing that; I am only saying that they have not been placed to the best advantage, and that with a proper organisation, and with the same exhibits displayed in an elaborate way, the result would have been magnificent.

1302. You have referred to a sort of rehearsal that we might have of the exhibits here, which should be conducted by such a committee as you have spoken of; that would cost a great deal of money for space in London, would it not?—No. A large hall could be hired, or a large shed could be put up very cheaply, which might serve as the permanent store-place.

1303. Land in London is rather dear to put a permanent store-place on, is it not?—But that is not the case near London. It might be within a convenient distance of London. Should you wish to exhibit, let us say, at Paris one year, the next year, as Mr. Wilson Fox suggested, it might not be advisable to exhibit, and the committee might advise that it is no use wasting money with regard to the exhibit at Bordeaux, say. Then what will you do with your plant? You have a magnificent plant of show-cases, arches, and decorations. Store it all in this place, have a few caretakers, and then, when the time comes for the next exhibition, have everything re-arranged. You have all your cases there, and everything ready, so that you can embellish it again and freshen it up as they do in France, and you are ready for another exhibition.

1304. Then you would have the storage-place outside London?—Yes. I may say, in conclusion, that I think an exceptional opportunity is offering itself to organise this committee. As soon as I found how matters stood at Liège, I came in contact with the French Committee for the purpose. I have approached several gentlemen here on the subject, and they are all very enthusiastic. I have asked the French Committee whether they would give us assistance, and they say they would do every-

thing in their power to assist us; there is no jealousy or anything of that kind, but they will do everything in their power to assist us to form an organisation like theirs. Consequently, we should be in a position at once to gain the results of all the twenty years' or twenty-two years' experience of this French Committee, and could apply that knowledge in starting such an organisation now. What has taken them twenty years to learn, we virtually shall be able to get in one year. I think the Franco-British Exhibition, which is going to be held in 1908, would be the best possible dress rehearsal that the British exhibitors could have.

Mr. I. Kirulfy.
7 Dec. 1906.

FIFTH DAY.

Friday, 11th January 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Swire Smith.
Sir Isidore Spielmann.
Mr. U. F. Wintour, *Secretary*.

Sir William Henry Preece, K.C.B., F.R.S., called and examined.

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1305. (*Chairman.*) You were, as we know, Engineer-in-Chief to the General Post Office, and I think you are a Past President of the Institution of Civil Engineers and of the Institution of Electrical Engineers?—Yes.

1306. I understand that you have been associated as exhibitor, juryman, committeeman, or commissioner with almost every international and British exhibition since 1851?—Yes. I have been associated with the following exhibitions: Paris, 1867, 1878, 1881, 1889, and 1900; Vienna, 1883; Munich, 1882; Antwerp, 1885 and 1894; Brussels, 1883 and 1897; Frankfort, 1891; Philadelphia, 1884; Chicago, 1893; St. Louis, 1904; South Kensington Loan, 1876; Fisheries, 1883; Health, 1884; Inventions, 1885; Colonies, 1886; Chelsea (Naval), 1891; Crystal Palace, 1881, 1884, and 1890; Earl's Court (Annual), Manchester, 1887; Glasgow, 1901; Edinburgh, 1886 and 1890; Liverpool, 1886; and many smaller ones.

1307. You have therefore had a very large experience; and from your experience, I take it, that you have formed an opinion about the value of international exhibitions?—Yes. I go rather away from the idea of an international exhibition being anything connected with business. I have had nothing to do with them as a matter of business, and I have not looked at the question from the business point of view. I look upon international exhibitions as a means by which we have improved immensely the technical and industrial education of the European nations, and especially of our own. I consider that international exhibitions stimulate enterprise, and that they encourage national emulation, international exhibitions advertise novelties, they excite invention, they impart knowledge, and they tend very much indeed to promote the progress of industry, craftsmanship, and art.

1308. You regard the question, then, more from the educational point of view than from the advertisement point of view?—Yes, I look at it more from the educational than from the advertisement point of view, though I think each of them holds an equally important position.

1309. You date back, amongst others, to the London Exhibition of 1851 and the Exhibition in Paris in 1881, you say?—Yes. The Exhibition of 1851 in London was the opening exhibition of all these great international exhibitions. First it was promoted by the Prince Consort. The Exhibition of 1881 opened a fresh field in the electrical industry; it was purely an electrical exhibition, and it has led to all the great developments of the electrical industry which the world has seen since.

1310. Was that because it came after the practical invention of electricity for lighting and power purposes?—Yes. It came just at the end of that period in nearly all new industries, when there is a kind of phase of secrecy, when everybody tries to keep from everybody else the knowledge of what he is doing. That is a most absurd phase, but in the industrial world you find it almost invariably the case in the tentative stage of development of a new industry.

1311. Then, to take another point, I think you consider that international exhibitions tend to promote uniformity of mechanical practice and standardisation?—Yes; and that I think is a very important point. In the first place, these exhibitions have led everybody to see what immense trouble, worry and bother there is in connection with all the things we generally use in manufacture and maintenance, such as tools, screws, wheels, and all those kinds of things, and how necessary it is to make them of one uniform kind and pattern. Therefore I think exhibitions have led generally to the notion that standardisation is much wanted in all these things—industrial, military, and everything else.

1312. Your experience is in engineering, I suppose, chiefly?—Chiefly in engineering and electrical enterprise.

1313. And not so much in art and in taste?—No. Of course everybody takes a deep interest in art; but I have not followed that side of the question in our Exhibitions so much as I have the mechanical details and the development of especially the electrical industries.

1314. Do you think these exhibitions have taught British manufacturers something?—They have taught us all immensely. In my own official position in the Post Office I had a great deal to do with the development of telegraphy, and I learnt a lot from exhibitions. I saw in the exhibitions much of everything that others had done, and it was the idea of finding something new and something good that drove me to pay so much attention to the details of the telegraph developments. It was from one or two of these exhibitions that several of our improvements were brought about.

1315. Can you tell us of any industry which has been affected adversely by exhibitions?—I know of none.

1316. You have not heard of any?—I have never heard of any.

1317. Have you not heard complaints from people whose secrets have been stolen?—I have heard of manufacturers complaining that their types have been copied, and that in consequence they have lost business. But that has always cut two ways, because the very man I have in my mind in particular who complained bitterly of this did not hesitate at all to accept a great improvement in detail that he had himself seen at the very same exhibition, and he adopted it without giving any consideration whatever. Therefore, clearly it cuts both ways. Then, again, it must always be remembered that everything exhibited is in the market, and that if a foreign firm wants to get a British

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machine of any kind as a pattern, it has merely to buy one, and then it gets the very machine itself to copy.

1318. But surely it is easier to see many machines and take what you like from all of them, than to have to find out the special one you want and buy that?—No. To make a machine, or to copy even the details of a machine, you must know the actual dimensions, and you must either have exact copies, or you must have patterns, or you must have drawings, or you must have the thing itself. When a machine is in the market, and a man can purchase it in the market, he will not take the trouble to get the drawings, or even have drawings made in an Exhibition. There is no doubt that the agricultural machinery people of this country complained bitterly of exhibitions for the very reason you have suggested. They have lost the trade. It is growing up again a little bit now in France, I believe; but practically you may say that the agricultural engineer here—that is the engineer who supplied the locomotives, boilers, ploughing machinery, and things of that sort—has lost that business on the Continent. But that is not in consequence of exhibitions; it is in consequence of the people themselves being able to get either by their own purchase or by the machines being used by their neighbours, the opportunity of copying these machines and taking models.

1319. In your *précis* you speak of exhibitions as intensifying advertisements and education; what do you mean by that?—I look upon it that the great moving forces of commerce and industry in the present day are really advertisement and education. There is a great fuss made about our backwardness in this country in technical education, but I do not think we are behind the world in technical education.

1320. I am glad to hear you say so?—On the other hand, I think we have led the world a great deal in that line, and even in the very worst case brought up against us, that is, the electrical industry. Where we are behind the world, and where we are behind every other European nation, is in commercial education. The German in commercial ways and commercial modes of business is far ahead of us. That is not because he is technically better educated than ourselves. The German business man is so much ahead of us because he has got a very much better method of carrying out his commercial business. That is why the Germans are carrying away the trade from us so much in the Colonies.

1321. You think the Government ought to support these exhibitions, I understand?—Yes; upon the grounds that I have just given.

1322. Should not the manufacturers who benefit by the advertisement pay most of the expenses?—Certainly, and they do to some extent. In the first place, no manufacturer can exhibit without expending a considerable sum of money, and without the manufacturers we should never succeed in having an exhibition worth calling an exhibition. But on the other hand, it must be remembered that if a manufacturer spends £1,000 or £2,000 or £5,000 in exhibiting, he would have to pay much more if he advertised in the technical journals and in the newspapers, for that is a very costly business. I can name a firm which spends as much as £100,000 a year in advertising.

1323. That is advertising in technical journals, and so on?—Yes.

1324. And the exhibition, you say, is a cheaper advertisement?—Certainly it is cheaper. It is not such an effective mode of advertising amongst your own people, but it is effective in advertising throughout the world.

1325. You attach importance to Government support?—Yes, very great.

1326. Because, as you say in your *précis*, private exhibitions are more in the nature of entertainments?—I think all exhibitions have very much the character of entertainments. Take, for instance, the last Exhibition at Paris; I should say 99 per cent. of the people went there, not so much for the Exhibition as for Paris and the amusements of Paris.

1327. But do they not get benefit or instruction, even when they go from a light motive?—There is no doubt that there is a great tendency at the present day to combine amusements with exhibitions—perhaps rather too much.

1328. Then you attach some importance to the political side also of exhibitions, and to their being made really international?—Yes, I do attach very much importance to that. I think it brings about a very warm feeling between different nations.

1329. In your *précis* you say that "the Americans are perfectly aware of the immense benefit to them as a nation of international exhibitions"?—Yes, I mentioned that particularly, because I think that the American Government assists immensely all those who are promoting exhibitions in their various big towns. That was certainly the case at Chicago and at St. Louis. They do not go to the same extent in giving financial support, but they assist; although how far I do not know. They throw the ægis of the Government over all the arrangements of the exhibition, and the result is that when the work connected with an exhibition is assisted by the Government at home, all other Governments pay a heed to it, which they do not do, or would not do, if it were promoted merely by private enterprise.

1330. But the American Government, as a Government, has not subscribed largely, has it?—They have subscribed as much as has been necessary. I dare say Sir Isidore could answer that better than I can. I should also say this with regard to Government support in this country—that we do not look quite so much to the Government for financial aid, because we have not been accustomed to it. We have been rebuffed very often. For instance, take the Exhibition of 1881. It was entirely a new idea to have an exhibition like that for electrical purposes, and the Government absolutely refused to help us in any shape or form. They did not form a Commission, they would not take it up, and they did not subscribe anything. The Institution of Electrical Engineers, then called the Institution of Telegraph Engineers, took it up. We formed a committee, we got support from manufacturers, we got together money, and we practically started the whole thing. When we found that every other Government had taken it up, and that we would probably fall into the background in courtesies if we were not supported by our Government, we managed by a little pressure to get the Government to agree to the appointment of a Commission. I think the Exhibition opened in May, but we did not get our Commission until June. Lord Crawford was the chief of it, and Lord Crawford was everything to us during the Exhibition.

1331. But that was only an electrical exhibition, I think?—That was the Exhibition of 1881, and it was only electrical.

1332. That brings me to a point that I wanted to put to you: Do you think that in the future specialised exhibitions will take the place of general exhibitions, and do you think that there is a greater advantage in having specialised exhibitions?—Yes. I can see that that is coming. I can see that the various new industries are themselves rather aiding and abetting these special exhibitions. You can see it at Olympia. We have had the Motor Exhibition, and we have had a very successful but small Electrical Exhibition; but they were purely business concerns, and there was nothing national about them. The Electrical Exhibition in London two years ago was very successful, but it affected London only, although it has been followed by exhibitions in all our big towns, which were equally successful. Those were special exhibitions dealing with one branch only of industry. When you come to all national industries, then exhibitions must be limited. The Exhibition of 1851, which embraced everything, is impossible now, the whole field of industry has become so very great. But an exhibition which could be limited to certain big fields would deserve some consideration. I doubt much whether, having regard to the great growth of the business of the world, an international exhibition like that of 1851, is possible.

1333. Am I to take it that you are rather in favour of an international exhibition of one single group of industries?—Or of a few limited groups.

1334. That is, of two or three or perhaps several of the principal groups?—Yes.

1335. You feel that industry is so tremendously specialised now that you would get an enormous exhibition if you included everything?—That is exactly my view. Engineering, art, and manufactures generally are three great subjects deserving consideration, but when you come to the industrial arts like pottery, silk, clothing, and things of that kind, it is very question-

able whether you can combine them together on a large scale.

1336. You have told us that you think there is a tendency for foreign countries to make their exhibits national?—Yes, very much so.

1337. Does that mean to the exclusion of the products of other countries?—No. What I mean is this: I think it was the case, certainly in Chicago, that all the other European Governments made a collective national exhibition of the products of their own country, and we did not. We have never made a collective exhibit, if I remember aright. I think we tried to do it, but it was a failure. The Germans and the French made grand collective exhibitions; they formed a little French exhibition and a little German exhibition, showing the principal manufactures and industries of those two countries.

1338. You are in favour of the collective form of exhibiting, are you?—Yes.

1339. Either of a district or of a particular class of goods, I suppose?—Certainly. We on a small scale here, would have a Lancashire division, a Yorkshire division, and a Scottish division, for instance. We could divide it into those collective forms. If we went abroad—if there were another exhibition in Paris, say—we would make it a collective British exhibit.

1340. Are you aware of what the Germans and the French have done in getting up exhibits on their system as compared with ours?—No, I could not give you any of the details. I have never been mixed up in the general arrangements of any of these exhibitions. I have always acted on the committees dealing with the engineering and the electrical part.

1341. But in those have you had a general collective exhibit, or have you let people exhibit as they liked, and in their own names?—Speaking purely from memory, I do not think we have ever had anything in the way of a collective exhibit.

1342. You have merely asked the chief firms to exhibit, and they have done so in their own way?—Yes. We certainly tried it at one of the exhibitions, but I forget which it was.

1343. You said some time ago that you were dissatisfied with what happened in 1881, as the Government did not appoint a Commission early enough, and so on; but can you give us any suggestions for improvement, or are you satisfied with the Government procedure in regard to exhibitions since?—I am satisfied; I think it has been working very well. The general rule is to appoint a Commission, and I think in all cases there has been a kind of General Commissioner appointed. The Commission itself has been broken up into committees, and we have always had extremely active committees, the success of all our exhibitions having been due to the activity of the committees—in my experience, generally due to the activity of the chairman of each particular committee. That tends very much to show that exhibitions are more likely to be managed well when the management of the different sections is rather individualised and placed in the hands of an experienced man. In several instances we have had considerable friction owing to there being too many cooks at work. My idea for the management of any future exhibition would be to have a Royal Commission first, and then to have a general manager—give him whatever title you like—and then to have the different sections worked by well-selected experienced men, who might choose their own chairmen, or the chairmen of the particular committees might be selected by the Royal Commission. To my idea, with Government funds, that is the way to manage an exhibition.

1344. Do you attach importance to there being a Royal Commission?—I think there is a good deal in that; first, because it secures the sympathy of Governments abroad, and, secondly, because it is the only way in which the Government and the country can reward the men I am speaking of—that is, by giving them honours.

1345. Do you think that a certain amount of honours are necessary for an exhibition?—I do think so. I think it stirs everybody up a little bit. We all like to have letters after our names; and that is the only mode or way in which it is to be done in this country. I put great value upon that.

1346. Do you attach much importance to the pavilion or other expensive local habitation that we have had at several exhibition—at Paris, for instance?—It costs a large amount of money, and it is very questionable whether it pays for itself. But, on the other hand, there is no doubt that it has afforded immense satisfaction, especially in America. There is nothing that we ever did which I think pleased the American people more than presenting them with those buildings that we had at Chicago and St. Louis. I cannot say anything of St. Louis, for, unfortunately, I was not there, as I was ill and could not go; but I can speak of Chicago, and that building is there still, being used as a club, I think. It is a very handsome building. Everybody from Chicago that I have met had something to say about this building of ours. It has pleased them all immensely.

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1347. And you think it remains as a sort of gigantic advertisement for us?—It is more than that. It is a very delicate way of giving a present for attentions shown to us.

1348. A return for hospitality?—Yes, a return. I do not think it is a bribe, I think it is a very pleasing way of expressing satisfaction.

1349. But you grant that it is expensive, do you not?—I grant that it is expensive.

1350. It cost £30,000, or something of that sort?—Yes. It did not matter in the case of the St. Louis Exhibition, because there, I think, we ended in having good surplus, or rather not a surplus, but a balance in favour of the Government.

1351. I am afraid the Treasury would not take that view; they would like it all back?—I think one of the most foolish things on the face of the earth is to go and return the Treasury any money they have once allotted for a given purpose.

1352. Would you not rather return it than spend it upon anything which was not necessary?—There were many ways in which that money might have been spent, and properly spent. It is the tendency to be economical that interferes very much with exhibitions. On the other hand, of course, you may be too extravagant, and there is no doubt that in the past there has been a good deal of extravagance.

1353. You do not altogether favour an international exhibition in London, I think?—For the reason I have mentioned before, namely, that it would be so gigantic. I consider that the great success of the Exhibition of 1851 was its proximity. It was centred practically in London. We have got no such place available now. We could not possibly apply Hyde Park to Exhibition purposes. With this exhibition coming on next year, the Franco-British Exhibition, we have to go and take land down at Shepherd's Bush. If there is one feature to make one fear of success it is the difficulty of getting people at night to go to a distance. You have seen the effect in the Crystal Palace; the Crystal Palace has never been a success. You have also seen the effect even at Earl's Court, which is very near, but the exhibitions there have not been great financial successes. If you consider the establishment of a large international exhibition here, you must consider that the one great prospect of financial success would be proximity to the centre of London.

1354. You rather favour international exhibitions in London for a single class of industry, such as auto-motors or electricity?—Certainly I do, very much indeed.

1355. And that is done at present by private enterprise?—That has been done entirely by private enterprise.

1356. And you do not see why it should not continue to be so; is that the case?—You know the purses of the manufacturers are not always full, and it is difficult sometimes to get money from them; so that you cannot always expect continued support from private enterprise. But a large international exhibition, however limited, if made, say, in 1911, which will be just 60 years after the 1851 Exhibition, would certainly get great support.

1357. By "limited" do you mean that it should be limited to certain classes of industry?—Yes.

1358. You appear to be fairly well satisfied with the present machinery for exhibitions; but there is no permanent machinery for exhibitions, is there?—There is no permanent machinery, and there is no permanent department to deal with the matter. The Board of Trade practically, I think, at the last two exhibitions took the lead, but you would know about that better than I do.

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1359. Do you see any advantage in our having some small permanent organisation, so as to have a continuous policy in regard to taking part in exhibitions or not?—Yes. I think that in one of our departments, say the Board of Trade, there certainly ought to be some such organisation.

1360. Do you think the Board of Trade would be the best department?—I think the Board of Trade is more in touch with industries and manufactures. Even its name, "Board of Trade," has something to do with the point. I think that is the only department that could do it.

1361. On the whole, you think the Royal Commissions have worked well so long as they have got hold of the right men as chairmen of committees to help them?—I cannot conceive of anything better than a Royal Commission on small lines, supported by the Government and assisted by well-selected, able, and experienced men, for they are, after all, the men who do the work, and they are the men upon whom the success of the thing depends.

1362. (*Sir Swire Smith.*) Do you think that another great international exhibition for this country would be a success?—I think the time has now come for one. I was very much disappointed that we did not have it on the fiftieth anniversary of the exhibition of 1851; but the sixtieth anniversary comes in 1911, and I think really the time has come when we in England ought to have something in the nature of an international exhibition.

1363. You think, at any rate, that each generation should have a chance of seeing what England can show?—I think so.

1364. Would you recommend that that should be largely supported by the Government?—Yes.

1365. With regard to sectional exhibitions, would you say that these should be generally supported by the industries themselves that promote them?—Yes.

1366. And would you give no help from the Government to those?—No; I do not think it would be needed. I think if the Government took in hand the entire administration (and it was a strong administration), that the industries themselves could support financially anything approaching a collective exhibition which should be managed by themselves through committees.

1367. Then, generally speaking, you would leave the sectional exhibitions to the industries, and the Government should support our own great international exhibitions, or any other international exhibitions in other countries in which we are represented?—Yes. But I should like to say that my views are entirely confined to the engineering and manufacturing sections. For instance, we cannot expect art to support itself financially; art would certainly require aid from the Government. Then in regard to everything in the way of military display or connected with the industries of the Government itself, telegraphy, for instance, nobody but the Government could make an exhibition of those things. So that the Government would have to appear first as the general parents in charge of the whole thing, and next as supporters of the different Government Departments who figure very largely as great industrial employers.

1368. What is your view with regard to the selection of the exhibits that should be sent from this country to any foreign exhibition?—I have not given much thought to that. Of course there are many specialties in this country, and British manufactures of various kinds. For instance, take steel, for which Sheffield is such a great centre. Then you can take all the cotton and woollen factories of Lancashire and Yorkshire; and the Potteries. All those places, of course, could form collections of their own, which should be supported by themselves and managed by themselves.

1369. That is the point—whether they should be managed by themselves, or whether they should be managed say from the Government?—I think we must take a lesson from the foreigner there. In all cases even the foreigner has left the manufacturers themselves, as far as I remember, to be a kind of committee to manage it. We should certainly have to do that here.

1370. You think the Government should supply the money and allow the local industries to make the choice?—That is so to an extent.

1371. Have you not heard that there is a very strong feeling on the part of many manufacturers in the north that the exhibition of 1851 really did great harm to this country?—There is no doubt it did much harm to a great minority who had practically the monopoly of certain businesses; but, on the other hand, it opened everybody's eyes to the fact that the other countries had other businesses which we had not in this country, and they were tempted to come to this country. There were many different industries developed here after the exhibition of 1851.

1372. You express a very strong opinion then that the exhibition of 1851 did us good and not harm?—Yes.

1373. I think you said you did not know of any industries in which any harm had been done?—I cannot recall any one industry that has been injured by the exhibition of 1851; but, on the other hand, if I took the trouble I could mention twenty or thirty different industries which have been absolutely inaugurated and developed in this country through the exhibition of 1851.

1374. That is to say, through exhibitions we have really learnt much more from the foreigners than they have learnt from us?—Much more. I have always felt that we lived absolutely in a fool's paradise before the exhibition of 1851. In the exhibition of 1851 one of the most beautiful exhibits in the building was the exhibit of the Zollverein. That is a long time ago, but I can see it before me at this very moment. It was the most beautiful exhibit I have ever seen. We have never seen anything better. It was an exhibit put there by the Germans, and it was a strictly collective exhibit. Of course, I was only a boy in 1851, but it impressed me very much indeed.

1375. You mention one or two points with regard to our great lack of commercial education rather than of technical education; of course, we need not go into that question fully, but would you not consider that commercial education is merely a branch of technical education? Is it not the technical education of the commercial man?—Yes. I take technical education to really mean training the brain to help the hand. I will add more than that—it is training the brain to help the tongue.

1376. Do you not consider that we have been very much behind in the technical instruction of our textile manufacturers?—We have been terribly behind, but where we are so behind is really in the development of trade. I can speak with great experience of this, for I have to deal with more or less nearly all the colonies. There is not a single day that I have not to deal with tenders or indents. The way in which the American or the German deals with his business makes me ashamed of my countrymen.

1377. (*Sir Isidore Spielmann.*) You say you think that Royal Commissions work well?—My experience is that.

1378. And that British interests under Royal Commissions fare well?—Yes.

1379. Do you not think that the delay occasioned by the formation of Royal Commissions is distinctly detrimental to our making a good exhibit at international exhibitions?—I am very much afraid it has interfered with us in the past a good deal. That is due very much to the fact that all these different Commissions have been made up of different individuals who have not had previous experience. What I tried to imply before was that we rather want experience; and there is no doubt you would secure that by having a Government Department whose business it was to look after exhibitions.

1380. You have referred to your having tried to form a collective exhibit, I think you said at Chicago, and that you failed. Had your failure anything to do with the want of money, or was it due to the ignorance of the would-be exhibitors, who did not understand the meaning of collective exhibits?—I think it was due entirely to the jealousy of manufacturers. There is great jealousy amongst manufacturers, and it is the most difficult thing in the world to get them to pull together. We are getting very much better now. We have had a considerable amount of experience in that direction with the committees that are now at work dealing with the question of engineering standards. In our Standard Committees, which are really managed by engineers, though supported by the Government, we have brought manufacturers together very much, and when once you bring them together we find they work splendidly. But unless they are well handled, this jealousy, which they cannot resist, will interfere, as it has interfered in the past very much. However, with our experience now, I should be inclined to say

that if any attempt were made to form collective exhibitions they would succeed, for manufacturers themselves are beginning to see that it is foolish to be so jealous.

1381. Do you think the Government grants have been sufficiently large in regard to British exhibits?—They have been very meagre in the past, but I think we have every reason to be pleased that they have been of late as much as they were. Our experience at Paris was lamentable in 1881, but I do not know that since we can complain of the Government. Of course, we should only be too glad to have more, but then you see in connection with St. Louis we had to return something.

1382. You are not in favour of spending large sums of money on our pavilions, and then presenting them to the nation on whose soil they happen to be erected?—No. If there were another foreign exhibition I should be rather inclined to hesitate at spending so much money upon these buildings. There is no doubt that it paid at Chicago, and it may have done so at St. Louis, but I cannot say. Those, however, are the only two places where we can well say that they have acted as presents, or as returns from us for the courtesies we have received. In Paris I do not think we have ever done anything of the sort.

1383. But you think in those cases we were repaid by securing their gratitude?—I think so.

1384. Then, with reference to the copying of exhibits, did I understand you to say that you consider the copying of our machinery or other things is the natural result of trade, and not the result of the things themselves being exhibited in exhibitions?—Distinctly so. I am perfectly satisfied on that point; I have no doubt about it.

1385. If we were to have another international exhibition in London, would you be in favour of stripping the exhibition of amusements, side shows, and so forth, and of making it solely educational and commercial?—We have never done otherwise, I think, in England; we have never attempted the side shows. It was in Paris and Chicago were the side shows were so marked. An exhibition in Paris without side shows would scarcely be acceptable, because it is looked upon as part and parcel of an exhibition there; but in London it is not expected, and we could do without it.

1386. I think you said that you do not consider an exhibition would pay unless we could bring people to and from the exhibition at night time with ease?—I look upon that as a very important point indeed.

1387. Are you aware that at Paris and at most other large exhibitions the buildings were never opened at night time, and that the people merely came there in the evening for the amusements, the music, the promenades, the cafés, and so forth?—I had in my mind the exhibition of 1881. In the evening there were always great crowds there. It was lighted up brilliantly for the first time in history by electricity, and certainly the evening audiences were the largest and the most pleased.

1388. You have forgotten that since then it is no longer the custom to open the exhibition buildings after dusk?—Was that the case in Paris in 1900?

1389. I think so?—I do not remember.

1390. (*Mr. Malcolm Ramsay.*) When you were speaking about the cost incurred by exhibitors at exhibitions you said that some might spend £1,000 or more; would these expenses fall as heavily on exhibitors in the case of exhibitions for which the public exchequer here has given a grant?—No; any grant from the exchequer here would tend to reduce the necessary expenditure of the exhibitor. What I said was that a manufacturer could make a splendid show, and use the exhibition as a magnificent advertisement, for £1,000, whereas if he were to depend upon the public press and technical journals to advertise his wares, he would have to spend ten or twenty or thirty times as much.

1391. Taking, for instance, the St. Louis Exhibition and the last Paris Exhibition, was it not the case that the exhibitors were relieved of all the expense of space, and a good deal of the expense of freight, by the public exchequer?—That is so.

1392. Do you think that in future we could legitimately ask manufacturers who exhibit to bear those expenses for themselves?—No. That idea had not occurred to me.

1393. If it pays an exhibitor to advertise in the form of an exhibition rather than in the trade journals, could he not afford to pay a larger proportion of the expenses, and so relieve the charge on the public?—I think, myself, that the payment of transport to and from is a very great inducement to get the manufacturers together, and that without it we never could have got an exhibition at all for St. Louis or for Chicago. In the case of the last Paris Exhibition I think we paid only one way—I cannot recall quite what we did, but I know that the question of transport was a very serious one, and I think we had to pay the transport one way, certainly.

1394. Then I may take it that in spite of the great advertisement which the manufacturer gets at exhibitions, you are not in favour of letting him pay all his expenses in the case of exhibitions which are supported by a Government grant?—Certainly not.

1395. Are we to understand that you attach more importance to the fact of an exhibition being officially recognised than to the actual financial support which the Government gives it?—I cannot imagine the one without the other; but as far as the managers are concerned, and as far as the moving spirit of the whole thing is concerned, I think that Government support and Government honours have more influence than any financial reward, whatever it might be.

1396. You said just now that the organisation under Government patronage was more effective in dealing with the representatives of other countries; what exactly did you mean by that?—What I meant to imply was that Government support and a Government commission had a very great influence in securing the sympathy of other Governments, and also courtesies, which a mere committee appointed by the industries—by private enterprise that is—could never obtain. Then again, there is the example of every other nation to be borne in mind. We are always exceptional in this, that the Government has only borne a portion of the expense, and has never borne the whole, while in the other countries the Government bears the whole expense.

1397. Do you think that with better organisation the management of the British sections could make more use of the money which the public grants?—That depends upon the amount granted. I think it was a foolish thing to return that balance at St. Louis; we might have expended it in some way or other which would have been useful for future exhibitions.

1398. But are you not aware that that money was granted by Parliament for the express purpose of the St. Louis Exhibition, and no other?—That is quite true.

1399. Therefore it was impossible to apply it to any other purpose without further application to Parliament, and nobody had any power to apply it to any other purpose?—That is quite true; but, on the other hand, that balance was the result of economies which were practically unnecessary.

1400. But no pressure was put on the management to effect economies, was it?—I do not know about that.

1401. The money was paid to the Commission, and I do not think there was any pressure to economise—certainly not from any Government Department that I know of?—I know that I took a very active part indeed in the management of one of the committees, and I was bothered very much for want of money. I speak feelingly over the business. It would have aided us very much indeed if we could have spent more money, I am speaking of the electrical display.

1402. The allocation of the whole grant between the various sections would rest with the central financial committee, would it not?—It did very much, but there was always throughout all our proceedings a kind of desire to show that we were not going to be extravagant.

1403. (*Chairman.*) There was always the fear of the Treasury before your eyes?—Yes, the fear of the Treasury.

1404. (*Mr. Malcolm Ramsay.*) Do I understand you to think that the money, £150,000, which was granted for St. Louis was insufficient?—No.

1405. £150,000 is a very large sum?—I will not say that it was either sufficient or insufficient, because I certainly have not paid attention to that financial side of the question.

1406. Do you contemplate that for an effective display at future exhibitions it would be necessary to give grants on the scale which was adopted at St. Louis and

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Paris?—Certainly, and much more—as much more as the Treasury would give.

1407. (*Mr. Algernon Law.*) You say that the use of exhibitions is chiefly educative, so that we go to them not to teach others, but to learn ourselves. Could not the same result be achieved by our manufacturers going to the exhibitions without sending exhibits? Could they not learn all that was necessary without showing their own hands?—My view is that the education is not the education of the manufacturer, but the education of the public—of those who go to the exhibitions.

1408. So there is not a direct commercial benefit to be derived from exhibiting at exhibitions?—I do not think it is a great commercial benefit to the manufacturer, except in the light of its being an advertisement.

1409. How do you account for the reluctance of manufacturers to exhibit even when the expenses are more or less paid, as they were in the case of St. Louis? They have to be drummed up, and it is no use writing letters, but people have to go and call on them and implore them to exhibit?—That is an illustration of the want of education, and that entirely supports my view. It is owing to the want of education really, and they do not look upon it as an advertisement in the light that I do.

1410. (*Mr. Wilson Fox.*) You say that "the Americans are perfectly aware of the immense benefit to them as a nation of international exhibitions"; you are referring there, I presume, to the exhibitions which they have held in America?—Yes.

1411. I can understand that it may be a considerable benefit to Americans to hold large exhibitions in their own country, because in that way they get an immense amount of money coming into the country, which is a direct benefit, and their manufacturers also get the means of advertising largely among their own immediate customers; but neither of those direct benefits accrue to the other countries who have to go to America and show there, do they?—No.

1412. So there are two aspects of it?—There are two aspects of it. What I meant to imply was that an international exhibition is good for the nation holding that international exhibition.

1413. And my point therefore is that the Americans would not necessarily be so enthusiastic about an international exhibition if it was held in Paris instead of Chicago?—That is quite true.

1414. The nations that have to send exhibits out of their own country have to look forward to much more indirect benefits, that is to say, to possible medals or prizes by which they may advertise themselves in their own country, or possibly to opening up new markets in the other country?—It is the possibility of new markets that has a great deal to do with it.

1415. Of course, some of our manufacturers not being exporting firms, and not even desiring to go into the export business, have no particular interest in showing?—No; and those are the people who hold aloof.

1416. There are a great many other manufacturers who hold aloof. We have had evidence given before this Committee that there is a very great difficulty in getting manufacturers to show at all, and, in fact, a great expert upon exhibitions, Mr. Kiralfy, informed us that he had never yet been satisfied at any exhibition with the British exhibit. Therefore I put it that it is not generally the feeling among British manufacturers that foreign exhibitions are a good form of advertisement?—I think that refers rather more to American exhibitions, because our manufacturers feel that they cannot get a market in America. I do not think it applies to any of the international exhibitions in Europe, for there they do succeed in getting a market for some of their goods.

1417. Still, we find from the evidence we have had that there is a very great reluctance on the part of manufacturers and traders to embark on that particular form of advertisement; on the other hand, we hear from you—which I have reason to know is accurate—that some of these large firms will spend as much as £100,000 a year in this country in advertisements. Looking at it from their point of view, as business men who may be presumed to know their business, that looks as if they regarded the expenditure of money in this country as more likely to return them something directly into their pockets than the expenditure of money on foreign exhibitions?—That would be a great argument in favour of an international exhibition in this country.

1418. It might possibly be so, but we have not had an international exhibition here for 50 years; and, on the other hand, some of the other arguments which manufacturers have put before us may apply, namely, that they do not wish to show their goods on account of disclosing their secrets?—That might be so.

1419. You were present at the exhibition of 1851, were you not?—Yes, and at the exhibition of 1862 also.

1420. Were you satisfied with the British exhibit in 1851?—It is a long time ago. I was only saying that it made such a deep impression on me that at the present moment I can recall to my mind the Zollverein collective exhibition, which was one of the great features of the place.

1421. (*Chairman.*) Surely you were a very little boy then?—I was not quite that; I was born in 1834.

1422. (*Mr. Wilson Fox.*) At any rate, you will not think it otherwise than as a compliment when I say you were very impressionable?—That is the only thing I can remember, except the tinted Venus.

1423. (*Sir Swire Smith.*) Was not the tinted Venus in the 1862 exhibition?—No, I think not.

1424. (*Mr. Wilson Fox.*) With regard to the engineering firms with which you are acquainted, do you think that engineering firms show at international exhibitions for the purpose of getting orders, or do they show mainly for the purpose of getting honours?—They show for orders solely.

1425. You think that?—There is no doubt about that.

1426. For the export trade abroad?—Yes.

1427. I was under the impression that it was the engineering firms, as much as any class of firm, who refrain from showing, on account of getting their machinery copied?—That has always been a fear with them, but I think that has disappeared. At any rate, I do not believe in the fear of copying.

1428. In the engineering business you do not believe that?—I do not believe in the copying in the engineering business.

1429. You say these exhibitions are technical schools, but is there really much to be learnt in the way of technical education at an exhibition? I can understand that if you go into an engineering shop, or into a manufactory, and see the things made, there is much to be learnt in the way of technical education; but is there much to be learnt in the way of technical education by going to an exhibition and seeing the finished article under a glass case?—I can speak with considerable experience of my own branch. I have gained an enormous number of wrinkles from examining exhibits. I have personally received considerable instruction from the apparatus that I have inspected as a juror particularly.

1430. But that would be more especially with regard to electrical work than anything else, I take it?—I am speaking almost entirely from the electrical point of view.

1431. I think you said that exhibitions are a good thing for working-men, and that they teach them how backward they are as compared with other people?—What I said was that the 1851 exhibition taught us all how backward we were.

1432. As a rule, there are not many working-men who go from here to exhibitions, are there?—Yes.

1433. Who go abroad?—Yes. A good many men went to Paris.

1434. Were they sent by the large firms?—I think towns have had collections and sent men. Many manufacturers send selected men. I am sure I have seen excursions in Paris from Lancashire. I have seen the working-man knocking about abroad a good deal.

1435. Do you think the British working-man when he came back worked a bit harder in consequence of his trip?—He had learnt a wrinkle or two. Of course it is only the smart man who goes.

Mr. BENNETT H. BROUGH called, and examined.

1436. (*Chairman.*) You are, I believe, the Secretary of the Iron and Steel Institute?—Yes.

1437. You are also an Associate of the Royal School of Mines, and a member of the Council of the Institution of Mining Engineers?—Yes.

1438. What has been your experience in connection with exhibitions?—I was juror at the International Inventions Exhibition, London, 1885, and at the Paris Exhibition, 1900. I organised for the Royal Commission of the Chicago Exhibition, 1893, a collection of the economic minerals of Great Britain, and served on the Committee for Mines and Metallurgy of the Royal Commission for the St. Louis Exhibition, 1904, and on the British Committee for the Paris Exhibition of 1889. I read papers before the Society of Arts on the Buda-Pest Exhibition, 1885; the Barcelona Exhibition, 1888; the South African and International Exhibition, Kimberley, 1892; and the Stockholm Exhibition, 1897. I delivered a lecture at the Kimberley Exhibition, and received medals for services rendered at the Inventions Exhibition, the Paris Exhibition, 1900; the Chicago Exhibition, and the St. Louis Exhibition, and was honoured by H.M. the King of Sweden with the Cross of the Order of Wasa.

1439. Have you formed any opinion as to the effect of exhibitions on (*a*) the manufacturing and exporting trades of this country; (*b*) British arts; and (*c*) the general commercial relations between the countries concerned?—I have formed the opinion that international exhibitions have had a beneficial effect on the manufacturing and export trades of this country, on British arts, and on the relations between the countries concerned.

1440. Which, in your opinion, are the particular industries, or classes of industry, that have chiefly benefited by exhibitions, and in what way have they benefited?—First regarding exhibitions as extensive bazaars, I believe that the sales directly brought about by exhibitions have been considerable. It is difficult to state exactly to what extent sales have resulted from the actual exhibit, and to what extent they have resulted from the detailed descriptions of the exhibits published in the technical journals if the world. I had, however, the opportunity of seeing the results obtained at a local exhibition held in Nuremberg in 1896. The outcome of a circular sent to the exhibitors showed that the actual sales effected through this small exhibition were as follows:—

	£
1. Mining and metallurgy	1,793
2. Foods	30,851
3. Textiles	8,072
4. Paper	133
5. Leather	6,614
6. Glass	2,102
7. Clay	1,742
8. Stone	2,997
9. Metal	21,494
10. Wood	21,632
11. Printing	3,922
12. Scientific instruments	3,133
13. Musical instruments	2,126
14. Chemical industry	2,106
15. Building and engineering	3,919
16. Transport	2,448
17. Machinery	55,862
18. Horticulture	143
19. Fine arts	4,061

Experience at other exhibitions would, I think, show somewhat similar results. The largest sales would be of comparatively small metal articles, universally used and in constant demand. Except in the case of striking novelties, the large metallurgical exhibits, that do not appeal to the public generally, would probably not show an adequate direct return for the heavy expenses of installation, and it is probable that the striking displays of the Le Creusot Works at Paris in 1900, and of the various steel works at Düsseldorf in 1902, were the outcome of a patriotic spirit without any hope of an adequate pecuniary return. Striking novelties, however large and costly, are exhibited with advantage. The exhibit of the large engine driven by blast-furnace gas by the Cockerill Company at Liège, in 1905, led to a number of sales in this country; and the comparative trials of rock drills at Kimberley, in 1902, were followed by many orders, as mine-owners were waiting for the results of so valuable and independent a test. Even firms with monopolies find it advisable to exhibit in order to maintain their position. Thus, notwithstanding the American tariff, there were at St. Louis excellent exhibits of best Yorkshire iron, owing to the fact that that material is even in America used for purposes where absolute trustworthiness is of greater importance than price. Exhibitions should, however, be not merely bazaars, but museums of industry and of social progress, too vast for permanence. The educational value is consequently far greater than that indicated by mere sales, more especially in cases where there is a retrospective collection enabling comparisons to be made of old and new methods. From this point of view it is always found convenient to hold international congresses in connection with exhibitions, and such congresses have in many cases had far-reaching effects. Thus the completion of the Postal Union was the outcome of a congress at the Paris Exhibition of 1878. In very many cases exhibitions have resulted in valuable ideas to manufacturers. The following are instances:—

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(*a*) At the Paris Exhibition, 1900, Messrs. Taylor and White, of Bethlehem, U.S.A., exhibited some high-speed tool steel giving astonishing results, which at once attracted the attention of British steel makers, with the result that before the exhibition was closed Sir W. G. Armstrong, Whitworth and Co., Ltd. (Manchester), were making similar steels giving even better results. Since then still greater developments have been made by that firm and by makers in Sheffield, and results in cutting powers far beyond expectation have been attained. The manufacture of high-speed tool steel has become a British industry of great magnitude, and the British product is even exported to America. There has been no secrecy regarding the improvements, for manufacturers now realise the value of an exchange of ideas. In fact, at the New York meeting of the Iron and Steel Institute, Mr. Gledhill (of Sir W. G. Armstrong Whitworth and Co., Ltd.) gave full details of the composition and properties of the high-speed steel he was making.

(*b*) At the Paris Exhibition, 1900, the Courrières Colliery Company, at whose mines the death-rate from accidents by falls of roof was abnormally low, exhibited models showing the systematic method of timbering employed. The late Sir C. Le Neve Foster, one of the jury, and one of H.M. inspectors of mines, was struck with the value of the method, and induced the Home Office to send a description of it to colliery managers in this country, with the result that the method was largely followed, or sometimes even improved upon, and there was at once an appreciable decrease in the death-rate.

(*c*) Exhibitions add to the knowledge of mineral resources. Systematic collections of economic minerals have resulted in the indication of fresh sources of iron ore supply, and of new fields for British mining enterprise. This is appreciated by Canada, whose mineral exhibits are invariably striking and effective. An exhibit of Indian manganese ore at St. Louis opened up an important market for that material in America. At Budapest, in 1885, no Hungarian mining or metallurgical product was omitted, the exhibitors showing not only specimens, but also maps, models, photographs, and statistics, and in many cases special monographs were prepared. The outcome was that the exhibition did much to raise the Hungarian mining industry from its then depressed condition. Again, the collection illustrating Japanese resources at St. Louis, the most complete of the kind, made evident the directions in which competition had to be faced.

(*d*) At Barcelona, 1888, Great Britain was very poorly represented, the British Court being confined chiefly to lavatory fittings. The French secured much business, but the English manufacturers did not profit by the opportunity afforded by the new Treaty of Commerce for the introduction of British manufactures into Spain.

(*e*) The exhibit of pictures by British artists, apart from actual sales by which artists benefit, has a more permanent effect in encouraging a taste for British art. The pictures shown in the British Pavilion at Paris, 1900, were regarded as a revelation by the French ironmasters, who were my fellow-jurymen, and this exhibit

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certainly gave a stimulus to art education in France. The exhibit of an English villa of the "Bedford Park" type at Philadelphia, in 1876, had a marked and lasting effect on American domestic architecture, and the working-man's dwelling shown by an English manufacturing firm at Paris, 1900, has resulted in improvement in housing accommodation for working-men on the Continent.

(*f*) As an illustration of the improvement in commercial relations, I may mention that my brother, an engineer residing in Belgium, has found that as a result of the interest taken in British exhibits at Belgian exhibitions, it has been easier for him to secure orders for British firms that he represents, even when they were not exhibitors.

1441. Do you consider that the interests of any industry or classes of industry are adversely affected by exhibitions; if so, which are the industries, and in what way are they affected?—Excepting the interests of the theatres, music-halls, and restaurants, which suffer from the counter-attractions of an exhibition in the same city, I do not think that the interests of any industry are adversely affected. In 1851, when British manufactures stood unrivalled, detrimental effects may have resulted from the wide publicity of the exhibition having enabled competitors to enter the field. For example, the steel then exhibited by Krupp was the starting-point of the development of that firm, which is now the largest in Europe. Nowadays, with the industrial progress that has been made in other countries, Britain's supremacy is not so universally recognised, and exhibitions afford an opportunity to British manufacturers of learning useful lessons.

1442. Do you consider that the direct commercial results obtained by the official participation of this country in international exhibitions have been such as to warrant His Majesty's Government in giving grants for the organisation of British exhibits in future?—I consider that the results obtained by the official participation of this country in international exhibitions have been such as warrant H.M. Government in giving grants for the organisation of British exhibits in future. The refusal of the British Government to participate would be regarded as a slight, more particularly in the smaller countries, where the patriotic spirit is very keen, and might lead to a partial boycotting of British goods. Apart from the question of grants, the actual participation of British Government Departments is of very great importance; for example, in organising comparative exhibits of mineral resources, geological survey maps, and accident statistics, and in showing to the world the progress made in Great Britain in technical and general education. Participation in international exhibitions is the only legitimate way in which a nation can advertise. Experience shows that if a firm desists from advertising in the newspapers, sales immediately cease. Similarly, even if official participation does not appear to be followed by marked advantages, non-participation would, in my opinion, be quickly followed by most detrimental results.

1443. Do you consider that equally satisfactory results could have been obtained by private enterprise?—The results obtained at some exhibitions by private enterprise have been eminently successful, notably at Brussels, 1897, where the wide connections as engineer and as editor of a technical journal ("Engineering") of the Commissioner-General, the late James Dredge, C.M.G., compensated for any slight that the Belgians may have felt at the lack of official participation. On the whole, however, I consider that private enterprise is liable to abuses. There are nowadays many so-called international exhibitions that are run by promoters solely as a money-making device, and it would be deplorable if British representation at a great international exhibition were conducted on the same lines.

1444. Assuming that public money is, in any case, granted for the organisation of official exhibits, do you consider that the grant should be made subject to any special conditions as regards (*a*) the accommodation and facilities offered by the exhibition authorities; and (*b*) the number and quality of exhibits offered by British firms?—I do not consider that grants should be subject to special conditions. Each exhibition should be dealt with on its merits, for obviously conditions laid down for an exhibition at Antwerp, 190 miles distant from London, would not apply to an exhibition at Tokio, 11,000 miles away.

1445. Can you state briefly what have been the methods employed by the British Government in organising exhibits for international exhibitions?—In organising exhibits, the practice has usually been for the Royal Commission to appoint committees to deal with the various groups covered by the exhibition. These committees, consisting of specialists and manufacturers, draw up lists of possible exhibitors, to whom circular invitations to exhibit are sent. Care has also been taken to interest the technical journals in the exhibition, in order to secure their help, which is of very great value.

1446. How do British methods compare with those of other countries, notably with those of Germany, France, the United States, Austria-Hungary, Belgium, Italy, and Switzerland?—The methods employed by other countries are in the main very similar, except that in Germany there is now, I believe, a permanent Commission on Exhibitions. For the Paris Exhibition, 1900, the Commissioner-General was Dr. Richter, of the Imperial Home Office, and the arrangements were made by that department with the aid of an advisory committee of specialists. At Milan, the German Commissioner was the German Consul-General at that city. In Germany much has been done in the way of organising collective exhibits—for example, the collective exhibit of German chemical industry at Paris, 1900, and the collective coal-mining exhibit at Liège. The latter was rendered easy owing to the existence of the German Coal Syndicate. With British exhibitors, collective exhibits are difficult to organise, owing to keen competition amongst the British exhibitors themselves, which militates against the subject being dealt with from a national point of view. At Paris, 1900, it is true, there was an excellent collective exhibit by the Redditch needle manufacturers, but even there there was one firm of Redditch needle makers that had an independent exhibit. At the same exhibition, a leading American technical journal, the "Iron Age," organised a collective exhibit of the catalogues and price-lists of American hardware manufacturers. The fact that the exhibit was organised by a technical journal obviated any jealousy among the firms concerned. In the appointment of jurors, the British methods have proved superior to those followed in the United States, where the position is often granted for political distinction. At the Paris Exhibition, 1900, my American colleague on the metal-working jury was a legal luminary, with no special knowledge of metallurgy, whilst a distinguished American metallurgist was appointed juror for an economic subject with which he had no acquaintance. British Royal Commissions have, on the other hand, always appointed specialists in the subject, with a knowledge of the language of the country in which the exhibition was held.

1447. What, in your opinion, have been the chief causes of success or failure of British exhibits in the past, and in what way do you think that the defects, if any, could be remedied in future?—At the Milan Exhibition, 1906, the British exhibits were a success, owing to the very complete, representative, and well-arranged collection of ship models. In other classes, however, there was the defect that the exhibits were not displayed to full advantage. For example, Krupp's exhibit was at first sight much more striking than that of Vickers, Sons, and Maxim, but when one came to look at them more closely, it was evident that Vickers' had more of interest, but so modestly arranged that the general public was not impressed. The lack of attractive arrangement has been noticeable at many other exhibitions, and even the decoration of the British courts has not been so effective as the French and German. At Milan there were but few British flags, whilst the French and German courts were very artistically decorated. At the Inventions Exhibition in 1885, there were very striking wall-paintings, illustrating the progress of invention. This idea might, I think, be followed, and the decoration rendered instructive as well as artistic. The importance of decoration may, of course, be over-estimated. In the case of undoubted merit the success of the British exhibits has been ensured with decorative aid. Thus, at Paris, 1900, the British locomotives were generally acknowledged to be easily first for simplicity of construction and excellence of workmanship. British exhibits might, I think, be improved if more could be done in the way of collective exhibits. For example, small uniform blocks of coal, with descriptive labels, from every colliery in the kingdom, are of greater national advantage than mountains of coal exhibited by a few rival firms.

1448. Do you consider that any, and if so which, of the methods employed by foreign countries could usefully be adopted for the organisation of British

exhibits?—The German idea of having a permanent commission has much in its favour as it obviates the lack of continuity usual with British Royal Commissions. Mistakes made at one exhibition are apt to be repeated at the next; and the same work has to be done over and over again. Thus, for Chicago, a collection of British economic minerals was formed. A similar collection was formed for Paris, and again for St. Louis. Had the original collection not been given away, it could easily have been brought up to date without writing again each time to every mine-owner in the kingdom. On the other hand, the permanent commission presents the drawback that the Chief Commissioner does not necessarily have a knowledge of the language and of the country in which the exhibition is held. And to ensure full success, it is necessary that the Chief Commissioner should be a *persona grata* in that country. At Milan, for example, it was of advantage to have a commissioner familiar with the Italian language and methods. For this reason I do not consider that the German method should be followed in its entirety.

1449. Do you consider that the appointment of a Royal Commission constitutes a satisfactory method of dealing with the organisation and preparation of British exhibits, or if not, what alternative machinery would you suggest?—I consider that the appointment of a Royal Commission is the best method of dealing with the preparation of exhibits. At the same time, certain modifications might be made. Hitherto, there has been a tendency to appoint as Chief Commissioner a distinguished officer in the Royal Engineers. Such officers invariably perform with dignity and success the social and ornamental functions of the office that are so essential in maintaining British prestige. Better results in dealing with the exhibits and the exhibitors would, I think, be ensured, if the commissioner were in closer touch with manufacturing industries. In order to ensure continuity from Royal Commission to Royal Commission, it might be well for some Government department, for example, the Commercial Intelligence Department, to preserve the records of exhibitions, and be in a position to give information, with the aid of an advisory committee, to intending exhibitors in exhibitions that are not of sufficient importance to warrant the appointment of a Royal Commission. The staff dealing with such matters would then be available in the event of a Royal Commission being formed. As possible economies at future exhibitions, I would suggest that the preparation of a costly souvenir volume might be dispensed with, and that a grant towards the travelling expenses of jurors is probably unnecessary, as specialists, who are willing to give their time to the work, regard the expenses of travelling as a trifling matter.

1450. Would you dispense with the pavilion as well?—No, I do not think I should. In Paris, it is true, it did not compare favourably with the pavilions of other nations, though it was very costly.

1451. It was very costly, indeed, I think?—Yes, it was, but it was not impressive. The German one in the vicinity was somewhat theatrical in style, but it impressed the public.

1452. Do you think the pavilion in Paris was not only costly, but that it did not impart dignity to the English section?—I think it was too refined and delicate to appeal to the general public.

1453. (*Mr. Algernon Law.*) In regard to the Nuremberg Exhibition, were the sales which you say were effected there effected by the local firms which exhibited, or were they effected by foreign firms?—It was entirely a local exhibition. It was purely a Bavarian National Exhibition.

1454. So that it is hardly comparable with an international exhibition?—No. I gave that because it is the only case I have ever heard of where such figures were obtained.

1455. Again, at Kimberley, were the orders given there local orders?—The Kimberley Exhibition was an international exhibition. The orders were for the local mines. The mines in the Transvaal were then being opened up.

1456. But the orders were not given for Siberia or any other mining country?—No, they were purely for South Africa; but the orders were given to English firms, and not merely to Colonial firms.

1457. You have spoken of the educational value of exhibitions. I suppose their value is chiefly to the traders of the countries where the exhibitions are held, and not to the traders of other countries?—Our practice is rather to organise visits. For example, when I was a lecturer at the School of Mines, I remember taking my class over to the Paris Exhibition as a part of their course, and the Government then paid the expenses of the teachers in training who were among my students at that time.

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1458. Should you consider it more important to send such visitors than to exhibit; in other words, that we have more to learn and less to lose by sending visitors than by sending exhibits which may be copied?—I think you can hardly expect to learn unless you are willing to teach as well. There has to be an interchange of advantages.

1459. An exhibition is free, and people can go in by paying; therefore, apparently, one might have all the advantages of taking part in an exhibition simply by sending people to the exhibition to learn?—In that way you would get all the educational advantages, except that you would not have the means of making a comparison. If Great Britain were omitted, it would be like studying the play of "Hamlet" with the Prince of Denmark left out of the cast.

1460. In the case of the exhibition of the English villa at Philadelphia, the advantage was really to the Americans who adopted our design of a villa, was that not so?—I do not think there was any advantage to the British architects in it. I have no information, but I should say probably not.

1461. You say that you think that the refusal of the British Government to participate in the exhibitions in the smaller countries might lead to a partial boycotting of British goods. Can you give any illustration of that? For instance, do you suppose that our refusal to take part in the Liège Exhibition led to any boycotting of British goods? Was there any ill-feeling there because the British Government did not participate?—I do not think there was.

1462. At any rate, it would be only a temporary feeling, I suppose?—I do not think it was serious there.

1463. It was hardly enough perhaps to weigh? If the British Government decided as a matter of policy never on any account to give grants for a British participation in a foreign exhibition, would there be any ill-feeling because we applied that policy in any particular instance?—I think there would have been a very great deal of ill-feeling if the British Government had not participated in the St. Louis Exhibition. That participation was very warmly appreciated by the Americans, and I think they would have conversely taken the opposite view if we had not participated.

1464. But if it were a matter of policy, would it not be like the question of Free Trade or Protection? Might you not, for instance, feel very bitterly that the Americans had a very high tariff, and might you not resent that?—Yes.

1465. I should think we should have more ground for resentment than they would have for our refusal to participate in an exhibition, particularly when the reason might be because, in consequence of the high tariff, there would be no gain to be got by participating?—Exactly.

1466. Can you account for the great reluctance of British manufacturers to exhibit, even when there is a Government grant? We find that letters are written to our manufacturers, and the Commissioners very often get no reply at all, and then they have to send round and try to beat up people to come in and exhibit?—I think that is largely because exhibitions have become so frequent. They are overdone. So the manufacturer is unable to discriminate between what is really a great international exhibition, and what is, say, an Earl's Court exhibition, which takes place annually.

1467. But if there is a Royal Commission upon it, they ought to be able to discriminate, ought they not?—They ought to be able to do so then, certainly.

1468. The Redditch people had a very good exhibit in Paris, but at St. Louis they refused to exhibit at all; do you think that was because their agents in the United States prevented them, our methods of trade being different from those of foreign countries, and we employing agents, who do not wish goods to be exhibited under the names of their manufacturers? Do you think that was the reason that operated at St. Louis?—I should think it was more a question of the market. In France there is a very great consumption

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of British needles, and it would be desirable to be *en evidence* there. But in America they have their own needles filling the market.

1469. (*Mr. Wilson Fox.*) Following on what you told Mr. Law, would you say that if the British exhibits in future international exhibitions are to be in any way successful there would have to be a spontaneous desire, on behalf of British manufacturers, to show?—Yes, I should think so.

1470. I want to find out if I can how far there is any spontaneous desire on the part of the British manufacturer to show, or how far these exhibitions are promoted by people who think an international exhibition is more or less a good thing, but who are not traders or manufacturers themselves?—It is very difficult to say, because I think the question is complicated by the frequent recurrence of small exhibitions dealing with one special industry. Last year in London there was an engineering exhibition which was a success, all the space being taken up at once; but that was purely as a bazaar. The foreign exhibitors came forward to take space at once.

1471. I want to ascertain whether in these international exhibitions the people who are really at the back are the great trading communities; but you cannot say?—I could not say, except in the case of Belgium and Germany. The Liège Exhibition, for instance, was largely organised, and largely paid for, by Cockerill's, the biggest firm in the country.

1472. I will put it to you in another way. Supposing the British Government refused to take part in any particular international exhibition, do you think there would be any great outcry on behalf of the traders in this country?—Yes, I think there would.

1473. Do you think they would object?—I think an outcry would be organised.

1474. By the people who promoted the exhibition?—By the London Chamber of Commerce, and bodies of that kind.

1475. Do you think there would be a spontaneous outbreak of dissatisfaction on the part of manufacturers?—That was the case with the Brussels Exhibition, if you will remember, when Mr. Dredge, of "Engineering," was appointed to organise the British representation.

1476. You did not hear of any similar meeting in the great industrial districts in the north of England, did you?—No; but of course this is some years ago, and I had no connection with the Brussels Exhibition.

1477. You say you have formed the opinion that international exhibitions would have a beneficial effect on the manufacturing and export trades of this country; have you got any evidence to show that they have had a beneficial effect on the export trades?—I think my example of the best Yorkshire iron is a case in point. Of course I have not got any figures, but I consider that the fact of these Yorkshire firms going to the expense of sending all the way to St. Louis, after having previously exhibited at Chicago, indicates that they must have had some return.

1478. Is that not rather begging the question? They went to great expense, and if they did not get any return possibly they may not show again; but the fact that they sent does not prove that it paid them, does it?—That is true.

1479. I have heard of large firms who sent, and in consequence of their experience they will not send again; that might be the experience even of the firms you mention?—Certainly.

1480. You have not got any evidence that the export trades have benefited?—I have not got any evidence that would be worth anything.

1481. And you base your belief simply on the fact of their having sent?—Yes.

1482. Then you say that participation in international exhibitions is the only legitimate way in which a nation can advertise. I put this consideration to you, that there are other ways in which a Government could help trade if it is to spend money at all with that object. It might, for instance, help the commercial community by spending money on technical or commercial education, or by the dissemination of commercial intelligence, or it might help by spending money on consuls or commercial attachés. There are various ways in which the Government might apply their money with the view of helping British trade at home and abroad, and it is therefore an open question, is it not, whether the money would be best spent on such lines as I have indicated or in promoting exhibitions?—I think that is entirely a matter of personal opinion.

1483. Exactly; but I mean that there are other methods open to the Government besides exhibitions?—Yes. But it seems to me that in exhibitions you have got the advantage of full publicity and criticism; whereas if you take the case of a report by a commercial attaché, he may write a report on a subject connected with iron and steel, say, containing the most glaring errors that nobody ever calls attention to at all.

1484. Quite so, but then, on the other hand, there may be some very bad and unrepresentative exhibits at an exhibition, because we cannot get perfection, you know?—Yes, but everybody sees them and criticises them.

1485. I am merely indicating that there are other means, for instance, technical education or commercial education, besides participation in an international exhibition, by which the Government could help trade. You went on to say that non-participation in an exhibition would, in your opinion, be quickly followed by the most detrimental results. You would not suggest, would you, that England owes her commercial preeminence in any way to the fact of her having participated in a handful of international exhibitions since 1851?—I do think so.

1486. Do you?—I could go on multiplying examples. Take the 1851 exhibition; there James Young exhibited some oil shale for the first time. That was the starting-point of the oil shale industry of Scotland, and also of the great petroleum trade of the world.

1487. Do you think the petroleum trade of the world would not have existed if it had not been for that exhibition?—It would have come a few years later. To my mind exhibitions just serve to accelerate matters. At Stockholm, in 1897, Dr. De Laval showed a steam turbine for the first time. That started the manufacture of steam turbines. Of course, they would have come later, but the result of exhibiting that at Stockholm was that the South Kensington Museum immediately secured one, and it was put in the machinery collection there, so that everyone could see it, and the subject of steam turbines was brought home at once.

1488. What surprises me so is that one finds some people hold the idea that if we did not participate in international exhibitions disastrous effects would occur to British trade; while, on the other hand, we find that we have almost to go on our knees to get the people chiefly interested—namely, the British manufacturers—to participate. It seems such a curious state of affairs that the man whose greatest interest it is to exhibit has to be begged to do so?—Exhibiting means a lot of trouble and a lot of work.

1489. Still, looking at it from their point of view, if it meant business one would have thought they would be willing to undertake it?—They will do it if there is no trouble. Take the case of the exhibition in Glasgow, in 1901; there all the space was allotted at once, and the exhibition was a most brilliant financial success. There, of course, you had Scottish patriotism as a basis to work upon.

1490. But the Scotch are good business people, are they not, when there is money to be made?—That is what I thought; but still it was certainly a most charming and well organised exhibition.

1491. Is it really a case of trouble? If there was a considerable amount of money to be made by the manufacturer by sending goods to the Paris Exhibition, do you think that the question of trouble would enter into it? Do you not think that the question of business would enter into it, and that if it were going to be a business affair the manufacturer would take the trouble?—But it is all a speculation, and you are not sure that business will result.

1492. Is it always a speculation?—You might be ashamed of your product, and not anxious to show it side by side with somebody else's.

1493. Nobody who was ashamed of his product would ever expect to make any money out of it, would he?—I do not know.

1494. Take the case of advertisements in the papers

in England. There is very little trouble connected with advertising in the daily Press, and it is a question merely of finding the capital; but no manufacturer would advertise in the daily Press unless he was going to get some return, would he?—I think if you were to inquire of the technical papers which have most advertisements you would find that they have just as much difficulty in getting advertisements by their canvassers as exhibitions have in getting exhibits. You would find that the advertisement manager of a big technical paper is a man of remarkable talents and earning a large salary.

1495. Still, I go about the streets of London, and I do not think we are short of advertisements at the present time, so far as I can see. Seriously can you give me any reason why British manufacturers and traders are so reluctant to advertise their goods by showing at these large international exhibitions?—No. My only point is that I did not know they were so reluctant.

1496. And you do not think they are?—No; except the people you want. There is always a vast number of people who would be ready to exhibit, but they are not the exhibitors that would do credit to the national exhibit.

1497. Would it surprise you to hear that many of our best manufacturers decline to exhibit at the large international exhibitions?—Of course, one knows that you rarely see them. As to those that do, take the case of Nettlefolds. They sent to Paris a case of screws, and I remembered having seen that case at every exhibition I had been to.

1498. They have been persistent, at any rate?—Of course, but they did not spend much on their display.

1499. (*Mr. Harris.*) You suggest that one result of the Exhibition of 1851 was that British goods and manufactures were copied a good deal, but you have suggested also, in other replies, that we have learnt a good deal from participation in foreign exhibitions. Have you any opinion as to where the balance of advantage lies; do you think we have lost more than we have gained?—In the past I think we lost more, but I think now that we are gaining more.

1500. Do you think it can be put down pretty much as a fact that on the whole we now gain?—I think so. I am speaking from the point of view of mining and metallurgy, which are subjects with which I happen to be connected. I certainly think that we are learning more now.

1501. That is in regard to mining, metallurgy, and so forth?—Yes.

1502. You referred just now to the Glasgow Exhibition, but was that at all in point as an international exhibition?—It was called International, though possibly it was not so really.

1503. Was that not an exhibition which might very well suit the manufacturers immediately around? You cannot argue from that, I think, to an exhibition in Paris, for instance, as regards the trade, can you?—No, but you can compare that with an exhibition in Liège.

1504. Can you—from the amount of good done to British trade?—Taking the two cases, you can compare the amount of good done to the respective local trades in the west of Scotland and in the Liège coalfield. The Glasgow Exhibition, which was remarkable for the display of steel for shipbuilding, showed the world that in Britain ship plates could be rolled up to 100 feet in length and 150 feet in width.

1505. The exhibition at Glasgow may have been very useful to the local trade of Scotland, but the exhibition at Liège would be of no benefit whatever to that same local trade or to the local trade of any part of the United Kingdom, would it?—No, it would not, I think.

1506. At any rate, I put it to you that it might not be?—That would be so.

1507. You referred in one part of your evidence to an exhibit at an international exhibition not being organised on money-making lines; what lines do you lay down as those which should rule in an exhibition?—I do not wish to lay down any rule. I merely wished to state the view that in the Hungarian Exhibition of 1885, at Budapest, the whole exhibition was the outcome of intense patriotism, or else intense anti-Germanism, in order to show what Hungary could do. In the same way at Düsseldorf, all the iron works and collieries of the Rhine and Westphalia exhibited in a way that they have never done at any other exhibition, just because they were in their own home.

1508. Do you think that an exhibition has any necessary connection with the trade relations between countries?—I would not go so far as to say that it has none at all.

1509. I said "any necessary connection"?—Yes, I understand.

1510. (*Mr. Malcolm Ramsay.*) Following up a point raised by Mr. Harris, do I understand your opinion to be that the benefit derived from exhibitions accrues mostly to the country in which the exhibition is held?—Yes, I think that is so.

1511. Take, for instance, the Paris Exhibition; that would benefit the French exhibitors much more than it would the German and British exhibitors, would it not?—Yes.

1512. You advocate the participation in foreign exhibitions as being favourable to trade in this country generally?—Yes.

1513. Have you formed any opinion as to whether British exhibitors derive more benefit from exhibiting in a foreign exhibition, when there is a Government grant given for their representation, than they do from exhibiting in a foreign exhibition when there is no Government grant given?—No. I have not had any opportunity of seeing any figures that could guide me at all in answering that question.

1514. I would put it thus: There is, first, the question of the benefit of exhibitions generally; next we have to consider how far the State is justified in giving grants for the support of its own manufacturers at foreign exhibitions. Have you differentiated between these two questions?—No, I have not. I am afraid I have not the requisite knowledge.

1515. Do you hold that it would be possible to give adequate official encouragement to British exhibitors in foreign exhibitions, without necessarily giving a large Government grant? Would it be possible for the Government to supply the organisation, the committee, and so forth, with facilities for the traders generally, but to let the traders bear the main expenses themselves?—That was the arrangement at Milan, I think, if I understand you correctly.

1516. Do you think it possible to secure adequate advantages to British traders under such a system as that?—I think that roughly the advantages would be the same under either system as long as you exhibit. But from the point of view of international relations and international prestige I think having a Chief Commissioner and having the machinery of a Royal Commission is a distinct advantage.

1517. Do you think we need go further than that? Need we put our hands in our pockets and spend perhaps £100,000, in addition to appointing a Royal Commission?—Personally I do not think you need.

1518. I can quite understand that British traders may get better sites and so forth at an exhibition if there is an official organisation to help them as against the trader from other countries, but we are told by other witnesses that there is a great reluctance on the part of British traders to volunteer to exhibit, and it seems, therefore, to be very doubtful whether the State is justified in going further than providing the machinery and in spending a large sum of money for the benefit of people who are most unwilling to go to the place at all. Have you considered the subject from that point of view?—No.

1519. Does your experience show that some trades are more likely to benefit by exhibitions than others?—My idea is that the smaller metal trades benefit most. That was the opinion I derived from serving on the jury in Paris. I was certainly very much struck with the information given by some of the French exhibitors; they seemed to be doing a good deal of business out of the exhibition.

1520. And you thought the manufacturers of the smaller articles were benefiting?—I was not on the jury for the large metallurgy, but Sir William Roberts-Austen, who was the British juror for those exhibits, was staying at the same hotel as I was, and he seemed to be quite surprised to hear how well the hardware people were doing.

1521. May I put it to you that some trades are likely to get much more advantage out of showing at an exhibition than others?—Yes, that is so.

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1522. Therefore if you spend public money largely on British representation, the main benefit goes to one class of trader, to the exclusion, perhaps, of others?—But I think there is a factor that you are not taking into account in your point—that is, that probably in all future exhibitions the field will be limited. At Milan last year the field was not nearly so large as it was in Paris. All the Paris exhibitions have tended to show that an international exhibition covering every field of industry is too cumbersome; and you find nowadays that you have an Inventions Exhibition, or a Health Exhibition, or a Fisheries Exhibition, or, as at Milan, an exhibition in which transport is the principal *raison d'être*.

1523. Then if exhibitions are getting specialised, do you think it would be possible to deal them out all round the various trades of this country so that every trade had an exhibition, and so a fair share of the Government support? It seems to me that the heavy steel trade—the manufacturers of locomotives and so forth, are handicapped at exhibitions because the expenses are so large and orders may not result to them in the same way as in the case of exhibitors of pottery, which is a nice convenient article for the manufacturer to take over?—That would be so.

1524. Therefore there is some danger of our unduly favouring the manufacturer of smaller and portable articles when we subsidise exhibitions?—But in the case of the locomotives every technical paper in the world praised the British locomotives at Paris, and the praise was forthcoming because the British locomotives were put side by side with complicated Hungarian, Austrian, and Italian productions. That made the British locomotives look so exceedingly attractive.

1525. Do you agree that on the whole the benefit particular trades get out of an exhibition varies very much?—Yes, undoubtedly.

1526. (*Sir Isidore Spielmann.*) Returning to your statement that non-participation would, in your opinion, be followed by detrimental results, I suppose you would agree that it would be better not to participate at all in exhibitions than do so badly?—Yes, I think so. That was my impression in Barcelona; I felt ashamed when I saw the British exhibit there.

1527. How do you reconcile that reply with your references to the Brussels Exhibition of 1897 and to the exhibitions at Liège and Milan? Do you refer to those as successes?—Brussels and Milan I would distinctly regard as successes.

1528. Setting aside the important art section and the collection of ship models, what success can you point to in the British section at Brussels? What one exhibit was there which was creditable to this country?—I visited that exhibition merely as an ordinary tourist, and am afraid I cannot remember them well enough. But I misunderstood your question; it was a financial success at Brussels.

1529. You said in reply to another question that "the results obtained at some exhibitions by private enterprise have been eminently successful, notably at Brussels." It is a notable fact that the Art section saved the credit of this country at the Brussels Exhibition, and that, apart from the ship models, there was absolutely nothing there which could be called a success. Why do you call it eminently successful?—Because they refunded almost all the money that was subscribed for floor-space, and I remember the flourish of trumpets at the time.

1530. Then the refunding of the money was the success?—That was an indication of success.

1531. Later on you said that at the Milan Exhibition the British exhibits were a success, "owing to the very complete, representative and well-arranged collection of ship models"; apart from the ship models what other success can be claimed for this country at Milan?—There was really nothing very striking, apart from the exhibits of British firms with branch establishments in Italy.

1532. At Liège they had not even a collection of ship models, I think?—No.

1533. What success was there at Liège?—There was practically no participation at Liège. The British section was quite insignificant.

1534. Then you have referred to approaching exhibitors by circular-letters; have you ever had any experience of trying to secure exhibitors by circular letters?—I was on the Mining Committee of the Royal Commission for St. Louis.

1535. Did you do any good by circular-letters?—I do not think so, but then they were followed up by private letters.

1536. With reference to Royal Commissions, you say that certain modifications might be made in them; what modifications would you suggest?—There is the point which I ventured to note with regard to the appointment of Chief Commissioner.

1537. Then you say that it is unnecessary to give jurors their travelling and other expenses incurred. Do you think that this country would get jurors to go to, say, St. Louis, on their own account and at their own expense?—Yes, I think so. The Metallurgical Jury got Professor Bauerman as juror. He was also attending the meetings of the Iron and Steel Institute in America at the time, and he would probably have gone in either case—whether his expenses were paid or not.

1538. But if he had not gone there on behalf of the Iron and Steel Institute——?—He was there just as a member of the Iron and Steel Institute.

1539. But if it had not been for that accident, is he, a professor, a man who can be expected to go over, at his own expense, as British jurors?—St. Louis is a far cry.

1540. Then your statement would not apply to exhibitions at great distances from this country?—In Japan, for instance, I suppose not. It is only an idea that occurred to me, but I really do think you could probably get jurors to go any distance.

1541. (*Chairman.*) Do you not think that you would often lose the services of good men as jurors if you did not pay them their bare expenses for going?—You do not, as a rule, pay them their bare expenses; you just pay them their railway fare. It seems to me that the position of a juror might possibly be better without that.

1542. Do you think it would attract a better class if you never paid anything unless you paid them well?—Unless you pay them well it is better to let the public know that the jurors are working freely in their service.

SIXTH DAY.

Friday, 25th January 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Swire Smith.
Sir Isidore Spielmann.
Mr. S. J. Waring.

Mr. U. F. Wintour (*Secretary*).

Mr. Thomas Cope, called and examined.

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1543. (*Chairman.*) What is exactly the name of the firm that you are connected with?—I am a member of the firm of Henry Johnson and Sons.

1544. What would you describe them as?—Continental carriers, general transport agents, and also exhibitors' agents from time to time.

1545. I believe you have had a great deal of experience in exhibitions?—Yes, I think I may say I have had a good deal of experience.

1546. You had experience in Brussels in 1897?—Yes, that was one of my greatest experiences.

1547. Then you were at Liège in 1905?—Up to a certain period; that is, up to the time that the exhibitors were mostly got together, and then I resigned.

1548. Was that because there was no British grant?—There was no British grant, and the committee I was working with were not willing to go on with the work. The Belgian Consul in London, who was a member of the committee, and who took a prominent part in the Brussels Exhibition, was very anxious to go on with it, and he had personally guaranteed the committee against loss, but he died in January, 1905. I myself retired for various reasons. The Belgian authorities were not keeping faith with us, and it was impossible to go on with it upon what I considered proper lines; in fact, it was owing to the impossibility of carrying on the work of the section otherwise than as a commercial speculation that I resigned.

1549. I think we need not go into the reasons, but you had experience there?—Yes.

1550. Then you had experience in the very important exhibitions held in Paris in 1889 and 1900?—Yes. I was resident there throughout the whole of those two exhibitions, acting as transport agent and as exhibitors' agent.

1551. Then you have had to do with other exhibitions, such as the Health Exhibition of 1884?—Yes. I did a little for the Paris Exhibition of 1878, but I was not resident in Paris at that time, and I only worked at it from this side. My real experience dates from the Health Exhibition.

1552. Then I think you were connected with the St. Louis Exhibition of 1904?—Yes; but on that I was only engaged here in connection with the transport of the British exhibits.

1553. Then I think you were a member of the British Commission for the Milan Exhibition?—Yes. I am also a member of the permanent Exhibitions Committee of the London Chamber of Commerce.

1554. I understand you are going to give us your experience about these exhibitions?—I should be happy to give you any information in my power.

1555. You think that international exhibitions have had a beneficial effect on the manufacturing and export trades of this country, I believe?—Yes, I do undoubtedly.

1556. But with regard to the Arts section, you do not offer any opinion?—No.

1557. What do you say as regards the commercial relations between the countries concerned?—That I consider, if I may say so, to be rather a vague question; but in regard to the commercial relations between the countries in the sense of developing trade, I consider that exhibitions have certainly had a beneficial effect. I know from experience that after an exhibition, generally, trade is opened up, because we have continued to act as transport agents or shipping agents for the various firms which have exhibited.

1558. Is it your experience that trade has been increased by these exhibitions?—Trade has been increased. I have often found that people have gone to an exhibition either with the distinct object of advertising something unknown in the country in which the exhibition was held, or they have been wavering in their intention to open a depôt or agency there, and they have taken the opportunity afforded by the exhibition of doing so; and they have continued business ever since.

1559. What are the particular industries which you think have chiefly benefited by exhibitions?—The machinery trades, I think, may be cited as the principal ones. Machine tool-makers are always ready to participate in an exhibition, and they invariably book numerous orders. It is rare that any quantity of machinery comes back to this country. I may mention the Paris Exhibition of 1900 in particular—and it was the same with the exhibition of 1889; practically all the machine tools and much of the machinery were sold for delivery all over the Continent—some of it went as far away as Persia, I remember.

1560. I think you are of opinion that manufacturers of gas engines, spinning, and wood-working machinery, have largely benefited?—Yes, especially the manufacturers of gas engines. Certain well-known firms, such as the National Gas Engine Company and the Campbell Gas Engine Company, are doing now an enormous trade, and, I am told, cannot manufacture rapidly enough for France at the present moment. Their trade, I think, dates chiefly from 1900. They made extensive exhibits then, and their trade has gone up by leaps and bounds ever since.

1561. Is that in consequence of showing their goods at the exhibition?—It has been done by showing their goods and seizing the opportunity to secure a good agent or establishing their own representative in the country. One of the best-known machine tool makers was just establishing a branch with an agent in Paris for France and Belgium; that man is now booking more orders than his firm can keep pace with.

1562. That is because they made use of the exhibition as a showroom?—Yes. There are many trades that use an exhibition as a local showroom. In 1897, at Brussels, all the sanitary earthenware makers, especially from the Potteries district, practically, in a manner of speaking, transferred their showrooms from the city to the Brussels Exhibition, and, I think I may say, developed their trade. That is very often the experience. A certain firm of furniture manufacturers were wavering at that time whether they would open in Brussels or not, and they seized the opportunity of making a display in the exhibition, and of opening at

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the same time. Their shop there is still running in a prominent part of Brussels, and apparently doing good trade. So with the furniture trade in Paris in 1900; some of them did the same thing. The proof of this is shown by the fact that the depots still exist.

1563. What do you say about awards at exhibitions; do you attach importance to them?—I attach great importance to them. I think that is a point which has been very much lost sight of in many exhibitions, notably perhaps in the Paris Exhibition of 1900. Some managers or members of the committees for the exhibitions attach no importance to them; but from my own experience I can say that many people go to an exhibition with the express object of securing an award. They want it perhaps for the advertisement which is given to certain inventions of some little-known manufacturer; or if they have been at the top of the list for a certain time they want to add one more grand prix or gold medal to their advertisements; so that they attach the greatest importance to these awards. The question is very often asked: "If I go, do you think there is any chance of getting an award, or getting a good award?" That has to be taken very seriously into consideration. When we are present as exhibitors' agents, we have to strive and strive as far as possible to get the best obtainable award.

1564. That is, to secure gold medals, diplomas, and so forth?—Yes. Of course, nowadays everybody wants a grand prix, which is the highest, or a diplome d'honneur, a gold medal, or a silver medal.

1565. Then we come to the *per contra* side of the question. Do you think that the interests of any industry are adversely affected by exhibitions?—That is a question I should have a great diffidence in answering. I cannot at the present moment think of any trade that has been prejudiced by them. Of course, manufacturers who feel that their trade is going to be prejudiced will not go to them. Exhibitors do not come in at all easily, and anyone who has any experience knows that. They weigh up very closely for themselves the question whether they are going to benefit, and if they know that the tariffs of the country in which the exhibition is being held are against them, they will not go to that exhibition.

1566. I gather then that you think people will take care of themselves in that respect?—Yes; and I think one may say they are fully able to do so.

1567. Do you think that the direct commercial results obtained are such as to warrant the Government of this country in giving grants to organise exhibitions?—Yes, emphatically; only there should be some better machinery for getting these grants and getting them earlier.

1568. Could not all this be as well done in the future by private enterprise?—No. I am strongly opposed to private enterprise in these matters.

1569. Why?—Because directly it is thought that anyone promoting an exhibition is, as the popular phrase goes, "on the make"—that is, if the person promoting it has some pecuniary benefit to derive from it, manufacturers fight shy of it.

1570. There might be a combination, I suppose?—Where I have seen that tried, I think the result has been a failure—I might almost say a fiasco. I have two or three instances in my mind at the present time where it has been left to private enterprise; but the people have gone in small numbers, the show made has been discreditable to the country, and it would have been far better from every point of view if it had been left alone.

1571. Supposing we take your view that public money should be granted for these exhibitions, what special conditions do you think should be asked for?—From those to whom the spending of it is entrusted, do you mean?

1572. Yes; are there any special conditions or restrictions that you would suggest?—My view is that the money so granted should be carefully disbursed in the best interests of the exhibitors. Of course, to be useful the grant should be given earlier than it generally is. Now, very often the matter comes before our committee of the London Chamber of Commerce; its decision is that it is desirable that there should be a British participation, and then comes the question, Will the Government give any money? It is always feared and rather assumed that they will not. Then the committee goes on between hope and fear for a considerable time. Other countries are getting to work and are engaging space, very often getting the choice of space, and then very much of the ground is lost before we can set to work. It is very late when Great Britain gets to work.

1573. Would you give a grant before you know that there are any exhibitors coming forward?—There must be some machinery in my view for knowing about that before exhibitors will come forward. If some permanent committee could be formed, some organisation which need not be gone into for the moment, as is the case in France, that would probably meet the difficulty. I am perhaps anticipating slightly the order of your questions, but I may say that in France the two things work together. Some such organisation as I suggest would place before the Government, I take it, the necessity for a grant. There would be a certain number of exhibitors practically guaranteeing the success, and then that grant being obtained, the money should not be spent lavishly according to some person's whim; neither should it be hoarded in a miserly fashion, as one has seen, with a view of returning as much as possible at the close of the exhibition. That money should be laid out in various ways. For instance, the space in an exhibition has always to be paid for to the foreign authorities. The question of how much space can be let out to exhibitors and how much must be, so to speak, wasted in passages and in making a proper display, must be taken into consideration; and a portion of the grant should, I think, be given to equalising matters, so that the cost of space should not exceed a certain usual figure. Then there is the question of receiving exhibits at the door, the gateway, or wherever it may be in the exhibition, or in the railway trucks, the unloading of them, and the placing of them before the allotted spaces. That, I think should be included in the price of the space. Very often an exhibitor takes space and calculates his expenses, and then finds that his goods have to be unloaded in some impossible corner, or that they have to be got, as was the case in Paris, right across the Champs de Mars, where the vans went every time up to their axle-boxes in mud—sometimes I have even had to lay down iron boiler-plates in order to make a passage or to make a kind of bridge. All that expense at present falls on the pocket of the exhibitor.

1574. And you do not want the exhibitor to pay anything at all for these?—I say the exhibitor should pay for his space, but the question of dealing with the exhibits, taking them into the exhibition, and putting them where they have to go, that is to say, putting them in front of the spaces—should be covered, I think, by the grant. In the same way there should be a proper guardianship. In some exhibitions we find competent guardians, in others the British exhibits are left at the mercy of foreign guardianship, and there is frequently theft, which might easily be avoided.

1575. There are the ordinary watchmen, I suppose, usually for the whole exhibition, are there not?—But they are foreigners and local watchmen. If you were on the spot you would know the class from which they are drawn. They are out-of-works, and many of them, I think one might say without any want of charity, take the position for its possible advantages.

1576. We are getting rather into details now, are we not?—I have got rather into details in trying to answer your question, what restrictions should be laid down? I think that if the Treasury gave a grant of, say, £5,000, that £5,000 should be spent for the benefit of the British section, and there should be no question of seeing whether it could not be done for £2,000 or £3,000, so that some individual might endeavour to gain kudos by saying that he has managed somehow or other very economically, and he is returning a certain proportion of the grant. In a word, the grant should be used for the greatest benefit of the British section.

1577. What is your experience of the methods which have been adopted up to now? They have been very varied, have they not?—I should call the methods a collection of samples—some good, and some as bad as could be.

1578. You are in favour, are you not, of a permanent management of the exhibitions?—Yes.

1579. And your criticism would rather be that in the past you have had practically amateurs, new to their work each time?—They are generally amateurs. That has been the case in the whole of my experience; and most of those amateurs have only gained a fair knowledge of their business, if I may use that term, by the close of the exhibition.

1580. I gather that you do not think that our methods compare favourably with those adopted by other countries?—By no means.

1581. Which would you put first among the countries? Which would you prefer for their methods of dealing with the exhibits?—I prefer the French. I think I should put them in this order: French, Belgians, and Germans. Those three come very closely together. The French method I think is the better.

1582. You know the French system, I suppose?—I know it pretty well.

1583. Do you like that sort of double system of having a society and then Government superintendence?—Yes, because by means of the society they readily get at the wishes and inclinations of the exhibitors, and, after all, you cannot get a representative section of any kind—and we are speaking and thinking now of the British section—without the co-operation of the exhibitors. Of course, the section may be padded up, and you can get so many lines in your catalogue by getting a number of so-called official exhibits which have done duty over and over again; but, with all deference to the departments and the societies which send them, they do not represent Great Britain properly.

1584. You want trade to be represented more?—The object of the British section, I take it, is the development of trade. One sees curious things sometimes in a foreign country. I was between two and three months in residence in Milan during last year's exhibition, and there one saw a collection of books exhibited by Government Departments printed in English, and I do not think I shall be exaggerating when I say that they never came out of the glass cases that contained them. I do not think that could be claimed as being an exhibit worth much consideration. There are many such things.

1585. Do you think that the causes you have mentioned account for the success or failure of British exhibits in times past?—I do think so. May I refer to one or two exhibitions in particular? Would it interest the Committee if I were to do so?

1586. Yes, shortly, please?—Take the Antwerp Exhibition of 1894. That was under the superintendence of a gentleman, estimable in his way, Her Majesty's Consul-General for Belgium. From a very early stage that gentleman was going about the Exhibition publicly lamenting with everybody he met upon the folly which led him to risk his money in running a British Section. He had been talked into doing it, as he put it, for some reason or other. The British Government made a small allowance of some £400 to assist him in the charges. He had associated with him the then acting Greek Consul as his assistant commissioner—a gentleman of whom it could not be claimed that he had any real interest in the development of British trade. There was no money for a proper organisation, and from the beginning to the end exhibitors were left to struggle on as best they could. Just at the critical moment when the juries were making their visits, the Commissioner fell ill, the assistant commissioner did not feel equal to the task, and disappeared. Then Sir Charles Kennedy came over. He was an old personal friend of Mr. De Courcy Perry.

1587. Most of us round the table, I think, know him?—Sir Charles Kennedy came over to see what he could do. He was entirely strange to the section naturally, and I had the honour of helping him to a considerable extent at his request; but there was no organisation whatever to protect the interests of exhibitors or to help them in any way. I will not say that Mr. De Courcy Perry embarked in it with any view of making money by it.

1588. No, and no one will say that?—But it was absolutely a private undertaking in the broad sense of the word.

1589. I suppose it was rather forced on him?—Exactly; it was rather forced upon him, I believe, by local influence.

1590. You give that as an instance of comparative failure, do you?—Yes. Then take the Amsterdam Exhibition of the next year. That was promoted by Reuter's Agency, who placed a representative over there. A certain number of exhibitors were got together. An agent—a manufacturer's agent—a shopkeeper there, working on Universal Provider lines, made a very large collective display; but the British participation was extremely bad.

1591. These two were rather small exhibitions, were they not?—They were advertised as international exhibitions, and they were patronised by various countries. The Antwerp Exhibition could not by any means be placed in the same category as the Amsterdam Exhibition, which was undoubtedly a small one. The Antwerp Exhibition was an exhibition of a certain importance. The display made generally was good, and I consider it was an exhibition which merited either a proper participation by this country or to be left severely alone. *Mr. T. Cope.* 25 Jan. 1907.

1592. What is your opinion about our participating in this sort of moderate international exhibitions?—From one point of view I think they are better left alone. Take Milan. In my opinion, for what it is worth, Milan is not a city which should have had an international universal exhibition; but the moment that it was known that France and Germany and Austria-Hungary were going to take part in it to the extent they did—Belgium again had an excellent display—then I think it was certainly necessary that this country should take part; and I think it should have taken part to a much fuller extent than it did.

1593. You have given us three instances of rather minor exhibitions where we have not had Royal Commissions. What do you say about the appointment of a Royal Commission as a satisfactory method of dealing with the organisation of an exhibition?—Take the Paris Exhibition of 1900. The Royal Commission organisation there was too clumsy, and did not get down to the level of the exhibitors.

1594. Do you mean that it was too large?—No. I find fault with the organisation and the attitude adopted by the Royal Commission. If I may diverge a moment, it is not often, I think, taken into consideration how exhibitors have to be got into line to exhibit. Exhibitors do not flock to an exhibition just because it is advertised, or because they have received a circular. As I once told a gentleman who was afterwards Commissioner-General for a Royal Commission, who came when I was on duty in Brussels to see me with an introduction, and asked me at the time how exhibitors are got together, the first question is, How much? That is undoubtedly at the root of the whole thing.

1595. Do you mean how much has the exhibitor got to pay?—How much it is going to cost him, and how much he is going to get out of it. That is a point which has to be taken into consideration from the very first. A manufacturer will not undertake to exhibit unless he knows what he is going to get for his money—that is to say, what the building is going to look like, what is the particular hall into which he is going, and what that is going to be like, and what sort of space he is going to get.

1596. Does he attach much importance to a great pavilion for the British section?—No; but he wants to know whether he is going to be in a hall with certain characteristics, or whether he is going to be in a gallery or under a gallery, or an avenue, or in a corner against a dead wall. I found personally in 1900 that it was impossible to get any of that information. I went myself on behalf of one of our principal exhibitors, the late Baron de Bush, of W. J. Bush and Sons, a name I believe very well known. His firm had made a very good display at Brussels, and I acted for them as a kind of technical adviser in various matters in connection with exhibitions. He was prepared to make a very extensive exhibit showing the crude products and the process down to the finished articles in perfumery, the essential oils, and various other goods manufactured by them. He proposed to make a show of four cases with a central cupola. I went to see whether I could negotiate the necessary space, but the idea of discussing it was scouted. I was told it was quite impossible to discuss any such conditions as that—"Let him send in his application, and if space can be allotted by the Committee it will be allotted."

1597. How long before the exhibition was that?—Speaking entirely from memory, that was in the early stages of the work.

1598. Was it a year before?—It was in the latter part of the year before. I approached the Commission in respect to several other proposed exhibitors, but always with the same result. It was only when time wore on, and they found that exhibitors did not flock in, that the methods were somewhat altered; and I think I am correct when I say that certain firms had to be called upon. I was told that it was quite unnecessary and that it was quite undignified even to canvass to see whether exhibitors could be got together;

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but that I know is a necessary step. Exhibitors want to know what they are going to get for their money before they will give in their adhesion.

1599. So that there must be a sort of scheme for the spacing-out in the minds of the authority whoever it is?—It is impossible, of course, to make a definite plan, but it is not impossible to work upon a plan from the very beginning. I endeavoured to get a representative British section together at Liège. There was a very satisfactory number obtained; some of those did ultimately take part in it and some withdrew, but those who did ultimately take part comprised a number of high-class exhibitors. There was one firm in particular, Burroughes Wellcome and Co., I believe a name very well known, who made no fewer than three distinct exhibits, but they would not engage a single foot of space without knowing where they were going to be placed. Although it is not possible to make a definite plan, I say that it is possible to work upon something in the way of a rough and ready plan from the very beginning. Take Chubb and Sons again. Chubb and Sons will not go to an exhibition unless they know what space they are going to have. I think that principle should be established from the initial stage.

1600. Does all this which you have told us, which is very interesting, lead to the moral that we ought to have a permanent staff? Do you think it has been done hitherto in an amateur way?—I do think so. There are gentlemen who have been connected with Royal Commissions, gentlemen of very high intelligence and great knowledge in exhibition matters; at the end of an exhibition those gentlemen absolutely join the ranks of the unemployed, as one finds after the close of an exhibition. I have received myself not once, but I may say half a dozen times, letters from gentlemen I have been dealing with and members of the staff to know whether it is possible to find them any employment.

1601. But you would not keep on the whole of the large staff of a Commission, would you?—Certainly not; but if there was some organisation such as the Exhibitors' Association which is being talked about very much at the present time, there might be an arrangement I think by which a certain number of the leading members of the staff might be provided for.

1602. Have you any ideas about the qualifications that you want in the Commissioner and the chief members of the staff?—For the Commissioner I say decidedly that you should have a commercial man, because a member of one of the Services, however estimable, does not get in sympathy early enough, if he ever does, with the manufacturers. A commercial man has a better knowledge of what exhibitors require.

1603. Would you easily get a good commercial man? Is he not fully occupied in his own business?—We have had them. I look upon my late esteemed friend, Mr. James Dredge, as an ideal Commissioner. He was a commercial man, and he knew the requirements. He had had, of course, a ripe experience of various exhibitions as a member of Commissions. From the beginning of his work he kept the requirements of the exhibitors steadily before him, without in any degree toadying to them or giving them any more than they were justly entitled to.

1604. I think he was an engineer and a Press man?—He was an engineer and one of the proprietors of a well-known journal. He was interested also in printing establishments, and so on. He was a commercial man.

1605. Do you attach importance to their knowing the language of the country in which the exhibition is being held, or French, anyhow?—They should know French anyhow, because naturally French is the universal language. When the Commissioners met in Brussels—we had at certain times weekly dinners and meetings—the Commissioners of whatever nationality always spoke French. Then French is generally the language for all exchange of documents; it has been so at this last exhibition at Milan. One always found people speaking French, and in any letters that were sent in the French language was used.

1606. (*Mr. Harris.*) Did I rightly gather from what you said that the British trader looks upon an exhibition as a means of establishing an agency in a foreign country?—Very often.

1607. But not invariably?—No, not invariably. Some have no intention of doing so. But I could name a certain considerable number who have taken that view. Then there are various other considerations. There is a firm that has flashed into my mind at this moment, the first manufacturers of fishing tackle in this country at Redditch; they have to my knowledge in three instances gone to an exhibition with a view to help their local agent, having already an agency there; and in one instance they took certain space and exhibited solely at the request of their local representative. Or it may be that they have no intention of establishing their own branch or depôt, but they have travellers in the country; and then they notify everybody in their trade that they have a showroom, so to speak, at the exhibition, and it is thus made the medium of developing trade by means of canvassers and travellers.

1608. In the country of the exhibition, that is?—Yes.

1609. Supposing for a moment that that is a prevalent idea, do you think that that justifies the grant of public money to aid the trader?—Yes; if it is the object of Government to develop export trade, certainly.

1610. So that you suggest as the primary justification of an exhibition that it shall aid in the development of the export trade?—Yes.

1611. Do you say that that has been the general result of exhibitions within your knowledge?—Certainly.

1612. I understand that at Liège, at a certain point you threw up your connection with it?—Yes.

1613. Would you mind telling us why you did that?—My connection, so far as I have been officially connected with exhibitions, has been in an honorary capacity. I consented to carry on the work up to a certain point, although it was almost a forlorn hope. The London Chamber of Commerce Committee was desirous of going on. We were assisted very loyally by the Anglo-Belgian Chamber of Commerce in London and by the Associated Chambers of Commerce. But the Liège authorities did not keep faith with us. We agreed to take a certain amount of space, 3,000 metres, and we made all our calculations upon the probable receipts from the sale of that space. The working expenses being reduced to the very lowest figures, the manipulation of 3,000 metres would have enabled us to cover expenses. The Liège authorities without any warning reduced that 3,000 to 1,900, cutting us down particularly in the machinery gallery where my demands for space were the heaviest. We carried on *pourparlers* for some two months, but without obtaining more space. At a certain moment I went to Liège with two of my colleagues, and it was agreed that for a slightly higher payment per metre they would build an additional hall for us. I telegrahed to a canvasser that I had at work in the Manchester district amongst the machinery firms, that he could go ahead with his canvassing because I had secured so much more space. Subsequently, some ten days after, I had a notification that they could not carry out their undertaking because this new hall was to be parallel with the German hall, and they found that the Germans had decided to make a monumental entrance just at that spot, and so they could not carry out their undertaking. Then they sought to restrict the space still more.

1614. Are we to gather from your statement that the reason really was friction with the authorities?—I do not like to use the word "friction." It was simply that they did not keep their word. They would not give us enough space to make the section pay for itself. Then I could not carry it on except as a commercial speculation, and I would not take it on on those grounds. The Belgian authorities offered to find the funds if I would act as their representative, and they subsequently found someone to work upon those lines.

1615. What I wanted to bring out was whether you thought the British traders were going to suffer because you could not get the right space?—I put it rather this way, that I say it was not possible to have what I considered a creditable British section, and I would not be connected with one that was not creditable.

1616. As a matter of fact, after you gave it up, did you form an opinion as to how it worked out?—Yes.

1617. I mean from the traders' point of view. I do not ask whether it was a creditable exhibition or not, but did the trader get any advantage out of it?—I think the results were very negative. The few people who had spaces in the machinery section did, I believe, very well. I know one of them in particular did.

1618. Generally speaking, from such an exhibition who gets the benefit?—The local authorities.

1619. (*Mr. Malcolm Ramsay.*) Continuing for one moment about Liège, did you find you were handicapped by not having the Government authority at your back?—Most decidedly. Because one of the first questions asked is, Is this under Government patronage? We tried very hard indeed to induce the Government to give us the £800 which had been returned from Brussels. That would have carried, of course, a certain Government recognition with it, and that would have been quite sufficient in itself to have turned it into a success.

1620. Then do you say that if you had had a recognised official status that would have been of much more importance to you than a grant of public money?—It would have required a small grant.

1621. But not a very substantial grant?—A grant of £1,000 would have made a good section, which would have been well filled, and even the £800 surplus we asked for would have been sufficient.

1622. Do you attach more importance to the Government giving official countenance than to the actual size of the Government grant?—I combine the two. I say the two are required—a grant which carries with it of course the recognition in some form.

1623. But the first and the most important element is Government recognition?—Yes; but that in itself is not sufficient without some grant.

1624. You want Government to pay the working expenses of official organisation, but it does not follow that Government need pay, for instance, for the space occupied by exhibitors?—No.

1625. Or necessarily for their transport?—You should have your working expenses and also the guardianship covered. You will always find some gentleman who will take up the position of Commissioner naturally in an honorary capacity.

1626. You were speaking of manufacturers booking orders through exhibitions. Is it your experience that our traders get more orders by going to exhibitions than they would by employing their own travellers?—Yes, because the people go to the exhibitions. I know that in many instances in Paris in 1900 some of our largest manufacturers of machine tools booked orders from the French railway companies and from the Belgian State Railway; and I think I may safely say that a traveller in the ordinary way would not get into those administrations—certainly he could not carry the machines with him and show them. He would not have booked those orders from a price list in the same way as they booked them from the working machinery at the exhibition.

1627. Then for some trades an exhibition is the best kind of advertisement?—Yes.

1628. If so, ought not the traders to bear the expense of advertising?—They do. There is none of them can go without spending a large amount of money. But I say that they should be assisted, that the space money should not be too high, that their interests should be safeguarded, and that all they have gone to the exhibition to obtain they should get with as much facility as possible.

1629. Did I rightly understand you to say that the greatest advantage had not been got out of the Government grants in the past?—In some instances. I am a member of the British Commission for the Milan Exhibition. I say I do not feel that we have got the best results from it. There has been rigid economy, and it is public knowledge, because it is everywhere in the Press, that it is hoped to return something like £4,000 to the Treasury. From my personal observation I say that some of that money should have been spent in Milan.

1630. Take, for instance, the cases of Paris and St. Louis, where the Government grants ran into six figures?—Of course, St. Louis was done upon totally figures?—Of course, St. Louis was done upon totally

1631. Would you say that at St. Louis the money might have been spent to much greater advantage?—No. I have nothing whatever to say in respect of St. Louis, because that is entirely out of any possible discussion. If you have Committees with large amounts at their disposal, and they are able to select the exhibitors that they desire to see in the section, and to pay all their expenses, of course there is no better way of getting the very cream of the country.

1632. Do you think that with better organisation the St. Louis money could have gone further?—No. I leave St. Louis entirely out of my own observation.

1633. Then you would not put the Paris Exhibition in the same category?—No, by no means.

1634. I understand you to think that, besides organisation on the part of the Government, combination among manufacturers is necessary?—Yes.

1635. Is there a field for it now? There is no combination particularly?—No, there is no combination; but there is a deep feeling, and a growing feeling, that the time has come when there should be a combination. I have heard it discussed in several recent exhibitions—the last time at Milan. There is a feeling amongst exhibitors that there should be some organisation, some combination. Our own exhibitors are not prepared at present to go to the full length of the French organisation. The French exhibitors fall into line. They pay a certain sum, and they receive so many feet in a show-case. In regard to that show-case, they have little or no voice as to its style—they simply pay and go, whereas, of course, our insular ideas would not permit our manufacturers to fall into line in that fashion right away, but a great deal could be done even in that direction.

1636. Would you go so far as to say that, unless there is greater combination among manufacturers, State organisation would be very greatly hampered?—Yes. Unless, of course, there was some State arrangement which would provide the machinery and the continuity, and represent the matter in such a manner as the exhibitors could understand and put themselves in sympathy with immediately.

1637. You are clear, I understand, that if the Government wishes to spend money for the direct purpose of encouraging trade, participation officially in exhibitions is the best way of doing it?—That is my opinion.

1638. You attach the more importance to that?—Yes, I attach a great deal of importance to that.

1639. Do you think it is the best way of encouraging trade?—I know of no better.

1640. Do you think public money is more usefully spent in that direction than, say, in the employment of commercial *attachés*?—Yes, undoubtedly.

1641. And in getting commercial information, and making it available?—Undoubtedly.

1642. (*Mr. Waring.*) What has been your experience with regard to the point of the difficulty in getting exhibitors to exhibit? Has it been greater of later years than it was in former years?—Yes, much greater. I attribute much of that to the want of continuity. Take an exhibition like Paris, where space was free, but the exhibitors had to pay their own expenses. At the next exhibition they may have to pay for space, and then they will say, "Why should I pay for space, seeing I did not have to pay at Paris?" Then comes the St. Louis Exhibition, where they did not have to put their hands into their pockets at all, and naturally at the next exhibition the work is infinitely harder.

1643. Has the fact that there has been keener competition by the manufacturers of other countries, and the fact that the manufacturers of other countries have had support from their Governments, affected the position at all of recent years? Has that influenced the fact that we do not get such a strong position proportionately in exhibitions of recent years as we did in the past?—I think there is something in that. Some of the countries, notably Germany, spare no pains or expense to make an overwhelming exhibit, and some exhibitors, I think, have been deterred by that fact. On the other hand, I generally find that if the expense of exhibiting is not too great, and if an exhibitor finds that he is going to have fair treatment, and that he can get the amount of space that he requires in many trades, especially in those that I have been speaking of, they are just as ready to go as ever.

1644. Have you ever heard any statement by an exhi-

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bitor that the trouble and the cost of exhibiting were so great that he had made up his mind that he would not exhibit again?—Yes, and no. Of course, at the latter part of any exhibition there is always a certain amount of grumbling, but very often those who grumble most are the first to put their names down for the next exhibition.

1645. You were saying that there has not been that ease of communication and agreeability on the part of the powers that control the exhibition to help people along which you think that there should be?—That is so.

1646. Has that been to a marked degree?—Sometimes.

1647. Is that because there is too much officialism, or how would you describe it?—With the Royal Commission there is too much officialism in various ways, not only in the preliminary stages. Then take the case of the awards. I tried on a certain occasion to get into touch with some of the members of the jury, and I was told it was a most improper request on my part to know who was the British representative in a certain class. I was treated almost as though it was assumed that I was going to offer him half-a-guinea to give me his vote. My object was to place in his hands certain specifications, certain detailed information, which it was hardly possible that he could possess of his own knowledge. There, again, I think there has been a great deal too much officialism. I am speaking of the Paris Exhibition of 1900. I think that the officialism from start to finish of that exhibition did a great deal of harm. I am facing one gentleman who will excuse me for speaking of him. Sir Isidore Spielmann gave us a very great deal of assistance, and threw himself into the breach at a very important time. I am not referring to anything which came into his scope.

1648. Was it to the effect that in giving information, or in helping you, they were practically conferring a favour?—Yes.

1649. It was not done in a business spirit—we are delighted to help you, we are here at your service. and we are anxious to facilitate you in every way we possibly can?—There was nothing of that.

1650. But the opposite?—Those to whom one had access knew nothing, and would not help. A few who had the experience had not the power to make use of it.

1651. Practically, there was an atmosphere that you could not get through?—Yes. I say that a goodly number of high-class exhibitors, who did not take part in the Paris Exhibition, would have gone had it not been for the officialism which kept them out.

1652. Consequently, you think that in the future there should be as little officialism as possible?—Certainly.

1653. That has been a great difficulty in facilitating exhibitions from the English standpoint?—I think so.

1654. Have you formed any impression from the point of view of financial help as to what the nature of it should be—whether it should be directed, as you have a little while back said, to facilitate matters on the spot, or whether there should be a financial grant to the exhibitor to help him towards his expenses?—That, of course, is a question that requires to be dealt with with a great deal of tact and knowledge of the affair. If I found that a certain exhibitor would make a splendid display of some manufacture—take, for example, machinery—and if I found that with the addition of a certain percentage of extra space that firm could make a much better display, I would increase their space, or I would give them a reduced rate for all space taken over a certain figure.

1655. You would make it an elastic point, depending on the individual factor?—Yes. I consider that if an exhibitor is disposed to take part in an exhibition, as was just now said, he should do so at his own expense. There are various ways in which the exhibitor could be helped, and that is one. If an exhibit would be better displayed by a few extra feet being thrown into a gangway, I should not ask him to pay for that if it was a general improvement. There is also the question of the suitable decoration of the section.

1656. Am I right in assuming that your impression is that there is a two-fold aspect in the question; first, there is the national one of the effect which the industry has upon the nation, and the effect of bringing the nation's goods in a national aspect to the front, and, secondly, there is the effect on the individual himself who is exhibiting?—There are those points.

1657. There is duality, in fact?—There is undoubtedly a duality. And the spending of the money must be governed by a proper consideration of those two sides to the question.

1658. Have you formed any idea on the question of a collective exhibit as against an individual exhibit?—A collective exhibit in many instances is good. I have the recollection of a very excellent one made at Brussels by the Cleveland Iron Masters' Association. They made a very fine exhibit. Then the Leeds Chamber of Commerce made a collective exhibit of cloth. In many instances, I think a collective exhibit is to be encouraged. There again is scope for the use of some portion of a Government grant.

1659. Are you thinking of a collective exhibit as regards a specific industry?—Yes, as regards any particular industry. It may be necessary to spend a certain amount of money for the proper display of a collective exhibit. When there is an individual exhibit, the exhibitor has his own show case, or he can hire at a limited expense a show case suitable for his display. But if he takes part in a collective exhibit and pays a proportion of the expenses, there is no asset at the end of the exhibition. It would be, I think, quite legitimate to use a portion of the grant in forming these collective exhibits.

1660. Would you apply that to the classification of an industry only, and not to the whole exhibition? I mean this: Would you advocate the policy of encouraging individual manufacturers, and also the adoption of collective exhibits?—Yes. Of course, each instance would have to be considered entirely upon its merits.

1661. You would not do away with individual exhibits?—By no means.

1662. You are quite clear on that point?—Yes. I think you would destroy, up to a certain point, the utility of the British section if you were to.

1663. (*Sir Isidore Spielmann.*) In the *précis* of your evidence, you refer to gentlemen who have been appointed to represent this country without any previous knowledge of the subject, openly expressing their regret, almost from the commencement, that they had undertaken the position, and only earnestly waiting for the end; would you kindly tell us which exhibitions you are there referring to?—I am referring particularly to the Antwerp and Milan Exhibitions.

1664. Speaking generally, at which exhibitions have the British sections been most successful—at those organised by Royal Commissions, or at those organised by the London Chamber of Commerce?—Leaving always St. Louis out of the question—I had not the pleasure of seeing St. Louis, but judging from my knowledge of the exhibits which this country sent there, I must leave it entirely out of the question, because that was exceptional—I consider the best display of recent years was made at Brussels.

1665. In 1897?—Yes. The display was better there, and the arrangement was better. We had our own section there, whereas in Paris the British exhibits were scattered all over the building. It has been very much the same in Milan. I think better results might be obtained if the work was put in hand earlier, and the local authorities were fought for certain better conditions.

1666. I think I am right in saying that the most recent exhibitions which have been promoted by the London Chamber of Commerce have been those at Brussels, Liège, and Milan?—Yes; but then the London Chamber of Commerce practically withdrew from Liège at the same time as I did, so that must be left out. That exhibition was really run by the Liège Executive Committee.

1667. In your opinion, has the London Chamber of Commerce sufficient influence to induce important firms to participate?—You know I am a member of the committee, and you are a member of the committee yourself, I think.

1668. I am?—My answer to your question is no.

1669. And you do not think it could exercise influence?—I do not think so. It is good up to a certain point. But London does not represent the manufacturers of Great Britain, and therefore I am of opinion that there should be a wider organisation,

embracing the manufacturers of the remainder of the kingdom, as well as the provincial Chambers of Commerce.

1670. Taking the Brussels Exhibition, you say you think that the British section was a success?—Yes.

1671. I think you said that the object of exhibitions is to improve trade. At the Brussels Exhibition, if you set apart the Art collection, which is said to have been good, and the collection of ship models, what was there at Brussels which constituted a success?—My remarks must be taken as more general than that. Unfortunately, at Brussels we had not a good machinery section. We could not get space for machinery, and we were very badly represented. Therefore, my remarks must be taken more generally, because whereas Brussels failed altogether, so far as machinery was concerned, Paris was a great success in that department.

1672. Setting on one side those two strong sections—the collection of ship models and the collection of British Art—can it fairly be said that the British section at Brussels was a success?—I think so. I cannot give you many figures to prove that certain trades did succeed, but I know very well that that exhibition was extremely useful, so far as the Staffordshire pottery trade is concerned, in certain branches of iron manufactures, and in the bedstead trade. Speaking from memory, there were two or three firms who exhibited there, and had practically show rooms in various branches of iron manufactures, who did business arising from the Brussels Exhibition.

1673. But taking the whole of the British industrial section, was it not more of a failure than of a success? I have here a copy of "The Times" of July 29, 1897, and, with the consent of the Chairman, I will read a few words from it with reference to the industrial section. "Before speaking of the Fine Art Department, and especially of the British Section of it, I may touch very briefly upon the General Industrial Department, which is, of course, in the eyes of the organisers and the general public, of most importance. Here the success is very varied, for while two countries"—Belgium and France—"are remarkable, the rest (including England) are but poorly represented. From Belgium, of course, one expects a great deal on such an occasion, and the show is large and good. . . . But though there is little originality, there are taste and good workmanship, offering what to the English visitor is rather a painful contrast to much of what is to be seen in the British section." Then he refers to the French section, and winds up by saying in reference to the French section, "Hence the delightful *coup d'œil* of the whole section, whereas our own is, if the truth must be told, ugly, unsystematic, and unattractive. Again, the best French firms are exhibitors; with us, whether in furniture or in the precious metals and jewels, the best houses seem to abstain." That does not read very much like a success, does it?—No. I have a volume of newspaper cuttings relative to Brussels, and of course one can get a great many opinions from them. I think that rather illustrates my view, because, of course, the grant at Brussels was very small, and there was no possibility of spending the money to greater advantage to get more exhibitors in the time at our disposal.

1674. You returned some out of the grant for Brussels?—Yes, £800; but seeing that it was necessary to keep a safe margin in hand for working expenses, I do not think that was a large amount to return. If there had been a few more thousands to spend, much more could have been done. That article speaks of the unfavourable contrast to Great Britain. We all know that the contrast is unfavourable to our country. The French are mentioned there, but then the French have their splendid organisation.

1675. I read this to show that the best British firms abstained from exhibiting?—There were some of the best at Brussels, but not nearly so many as one would have liked to have seen there. That, I think, emphasises the necessity for a better organisation on our part. Speaking from memory, I think the French have something like 1,500 members of their permanent organisation.

1676. Turning again to Liège, I believe I am right in saying that the London Chamber of Commerce issued a very large number of circular letters inviting the most important Anglo-Belgian firms in the City of London to form a guarantee fund and to subscribe?—Yes.

1677. To that circular letter they had practically few, if any, replies?—Yes, that is perfectly true. *Mr. T. Cope.* 25 Jan. 1907.

1678. Consequently, it does not look as if the Exhibitions Committee of the London Chamber of Commerce had sufficient influence to induce important firms to exhibit?—No, and I never suggested that it has that influence. I do not look upon the Exhibitions Committee of the London Chamber of Commerce as an ideal body, by any means, nor would such a committee ever answer the full purpose. In forming a committee in connection with such a body, Mr. So-and-So's name has to be put down; he may have done good service ten years ago or twenty years ago, and he may be an excellent man to be on a general committee, but he has no knowledge of exhibition matters, and therefore he takes no interest in it himself. You know very well how very few members attend those meetings, and how very few take any interest whatever in them.

1679. A previous witness told us that he considered the British section at the Liège Exhibition a success; but you could not endorse that statement, I gather?—No.

1680. As regards the Milan Exhibition, would you call the British section there a success or a failure?—I should not call it a success. It was not one which I think anybody who has been there can feel proud of, excepting the ship models, which always do most excellent service. There, again, I say of the Milan Exhibition that the same want of continuity—the same want of continuous knowledge—has proved fatal. You could go there into the so-called Decorative Arts Section, and what did you find? You found a Turk, a German, and people of other nationalities, selling twisted wire and enamelled brooches, German hardware, Swiss moonstone jewellery, and odds and ends of every description. All those people that are known in exhibition parlance as "fakers," everyone of them, were kept out of Brussels, and they were kept out of Paris; but in Milan they were present in numbers. Certainly, each one adds one name to the catalogue, and one will be able to say presently that so many British firms took part in the exhibition. But I say that exhibitors like those are a disgrace to any British section. They constitute themselves British subjects nominally by having an address in London or elsewhere, and they go under various names.

1681. You have referred to two grants of £5,000; do you consider such grants are ample to organise British sections? Surely that would not be so in the case of Royal Commissions? I suppose you were alluding then to the London Chamber of Commerce?—So much must depend upon the city where the exhibition is being held. I do not believe that we should rush into participation in any foreign exhibition, but £5,000 would be a good medium figure for a grant; but, of course, as you say, not for a Royal Commission. So much depends upon the lines that the Royal Commission would work upon. If money is going to be spent lavishly, £5,000 would go no way on the road to success. I should say that a grant of from £5,000 to £10,000 would be sufficient for an ordinary exhibition.

1682. In mentioning these figures you do not include Art, of course?—No, I should leave Art entirely out of the question.

1683. (*Mr. Algernon Law.*) You said that at the exhibition of St. Louis the British section was a success; do you know of any good result to British trade that has followed from it?—No, I have not heard of any. I ought to say that I have not sought to obtain any information on the subject.

1684. In a case of that sort what do you think is the outside sum that ought to be spent?—I have always understood that taking part in that was a political consideration, and I do not think any figure could be named.

1685. You have referred to the absence of a knowledge of French in the case of some of the officials; could you say at what exhibition that was?—I would rather not go into details, as I think it would not be quite fair; but I have seen instances where people have had no knowledge of the language of the country in which the exhibition has been held, although that has been essential to the carrying on of the business.

1686. What do you think is the main cause of the failure at Milan?—The impossible conditions. We accepted blindly all the conditions laid down by a collection of individuals who formed the committee at Milan, none of whom had any previous experience of

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exhibition work. They had framed a set of impossible conditions, and I attribute much of the want of success to the unsatisfactory nature of those conditions, and to a blind acquiescence in all the conditions laid down. A better acquaintance with the subject would have avoided all that.

1687. (*Mr. Wilson Fox.*) I understood you to say you had found the British exhibit at Brussels the greatest success of any British exhibit you had seen at any exhibition of recent years?—I look upon the lines of the British section at Brussels as the nearest to the ideal that we have had.

1688. But after listening to the article which Sir Isidore Spielmann read out of "The Times," we cannot say that that is putting the level very high, can we?—It is putting it about as high as it could be, because we compared so very badly.

1689. I am not talking about the comparison; I am looking at the exhibit at Brussels from the point of view of whether we are satisfied that that exhibit fairly represented Great Britain. Do you say that the Brussels exhibit was a satisfactory one from that point of view, to begin with?—From that point of view, yes. Of course, you must draw a wide line between Paris and any other city.

1690. I am taking what you said about Brussels; is Brussels your ideal of what a British exhibit should be?—It is the best we have had in any recent Continental exhibition; but then we have not had many.

1691. That is not quite what I was asking. Do you think that the British nation could fairly have been satisfied with that exhibit if they had all seen it?—No; no more than they would have been satisfied with any participation under similar conditions.

1692. I am only taking your standard of comparison. You say that the Brussels exhibit was the best?—The best we have made.

1693. I only want to know whether in itself it was a fairly good one, or a fairly moderate one, or a fairly bad one?—It was a fairly good one, but by no means coming up to my ideal of what a British section should be.

1694. That is what I wanted to ascertain. You have been to a great many exhibitions and seen a great many British exhibits; can you tell me at which exhibition that you have visited you consider there was a really representative commercial British exhibit?—The two Paris exhibitions, of course, have been the very best, because you will always find more manufacturers willing to exhibit in Paris than in any other city.

1695. I want to know at which exhibition you think there was a really representative British commercial exhibit?—I can only say again that there has been nothing better than Brussels of recent years. The number to compare with is so very limited—you have had exhibitions at Brussels, Milan, Antwerp, Liège and Amsterdam; there has been nothing else.

1696. You say Brussels is the best, but what I am wanting to ascertain really is whether you think that at any of those exhibitions it could be said that British commerce was properly represented?—No; and that is why, if we are going to continue to participate, I say that we should organise ourselves upon some such lines as have been adopted in France.

1697. In existing circumstances, if a firm has applied to exhibit at the exhibitions in which you have taken part, could that firm exhibit when it has got something to show, whether it was good, bad or indifferent? Is there any control exercised?—Generally speaking and on broad lines, yes, there is.

1698. Who exercises that control?—The exhibitor has to send in, roughly, a specification of what he is going to exhibit, and sometimes he has to send in a photograph or sketch of what he proposes to exhibit.

1699. In fact, do you find that many firms have been refused permission to exhibit at an exhibition on the ground that their proposed exhibit was not desirable?—Yes.

1700. You have found that?—Yes.

1701. A large proportion?—A good number. Many of the applications come from firms such as I instanced just now, which should have no place whatever in a British section.

1702. Then there is at present some selection?—Undoubtedly. For Liège I did not pass a single application until I satisfied myself that it was a fit and proper exhibit.

1703. On the point of what you said about having more organisation, do you think with reference to collective exhibits that a British manufacturer or trader would care to have the exhibit he sends to an exhibition arranged by anybody else but a member of his own firm, or a representative of his firm?—Of course, you know that a great deal of the installation is carried out by agents.

1704. Do you think that a British firm would care to send a large exhibit and to have the whole arrangement of it put into the hands of a committee nominated by a Royal Commission, or whatever body is responsible for getting it to the exhibition?—No; and I do not see why they should. I think it should be mutual. Of course, a committee should have considerable powers in saying how it should be arranged, but every trader should have, and must have, a better knowledge of how his goods should be displayed, and I think therefore the exhibitor's views should have considerable weight.

1705. He would wish to show from the point of view of his firm what his firm could best produce?—Yes.

1706. But the central committee might want to show what goods of that particular class Great Britain can produce, and their idea of the arrangement of the whole might be to take the exhibits sent up by ten firms and showing those goods all together, and that might be a very different arrangement to that which the ten firms might themselves individually prefer?—I think that would be a matter of very easy arrangement.

1707. You do not think there would be any difficulty about that, then?—I think there would be no difficulty about that.

1708. You think there would be no danger of the firms who are showing having their individuality swamped?—No; I think it is a matter which could be easily arranged.

1709. Would you say that individual firms would consider that a very important point?—Yes; and, of course, I should only advocate grouping under certain circumstances.

Mr. William Burton, called, and examined.

Mr. W. Burton.

1710. (*Chairman.*) Can you give us the name of your firm?—Pilkington's Tile and Pottery Company, Ltd., Clifton Junction, near Manchester,

1711. Is that the firm which deals in glass, too?—No. My partners are brothers to the glass people.

1712. Have you had some experience in exhibiting?—Yes. We exhibited at Paris in 1900, at Liège in 1905, and at Milan this last year. We have also exhibited in our own country at Glasgow, Wolverhampton, and Manchester; but those exhibitions were not quite in the same category as the others.

1713. What is your opinion as regards securing first class exhibits for such exhibitions?—My own opinion is that in connection with most of the recent exhibitions the British Commissioner or Commissioners, whoever they have been, have hardly approached the leading firms in our industry—that is, the pottery industry. I may say that although my works are in Manchester, I am intimately connected with the leading manufacturers in the Staffordshire Potteries. I am an active member of the Joint Committee of the Pottery Manufacturers, and I have discussed this matter with firms like Mintons, Doultons, Ridgeways, and so on. We are all of opinion that if it is considered necessary or advisable that British manufacturers should be represented at international exhibitions abroad, surely it is imperative that steps should be taken to ensure the co-operation or to enlist the sympathy of all the best firms in the trade. When the Glasgow Exhibition was being organised, one of the leading potters in Glasgow was on the committee—Sir James Fleming, who is the head of the firm of Cochrane and Fleming. He wrote round himself to all the principal pottery manufacturers he knew, bringing his personal influence to bear, and pointing

out to them the advantages to be derived from exhibiting their wares in Glasgow. Had such a course been pursued, we will say at Milan, this last year, or had the Commissioner deputed somebody who knew something about the subject to go down to Stoke-on-Trent, and so on, and address a meeting of the Chamber of Commerce there, pointing out the commercial advantages to be derived by our district by increasing our trade with North Italy, I am quite sure that a better representation of our trade, at all events, could have been secured.

1714. I suppose you received circulars or letters asking you to exhibit?—Certainly we received circulars; and usually, I am afraid, a circular like that generally finds its way into the wastepaper basket. I know it did in my own case, simply because it did not tell me anything. There was a circular which I read carefully, but it did not appeal to me at all; the thing was not put to me really. As a matter of fact, if I had not been approached afterwards by an exhibition agent, who pointed out the advantages that he could see to British trade that would accrue from this exhibition in Milan, I would not have exhibited.

1715. Could not that have been put in the circular?—Possibly. I do not say that it could not; but I think it could have been done better the other way.

1716. Leaving out the smaller ones, were you asked by the Royal Commission to exhibit in Paris in 1900?—I cannot recollect now whether we were asked to exhibit or whether we asked to be allowed to exhibit there; but that is immaterial, for I dare say we got the circular.

1717. Anyhow, the proper steps, you think, are not taken to secure the best exhibits?—I think so.

1718. And you think it could be done by somebody going round to the industries?—If somebody were deputed to visit the leading towns where applied-art manufactures are carried on, such as, for instance, Birmingham, Stoke-on-Trent, Sheffield, Manchester, and so on, and if they would write beforehand to the Chambers of Commerce and say, "Now, will you advise us as to the firms we ought to see or the steps we ought to take to enlist sympathy and interest in your district," it seems to me certainly that that would be a much more practical way of getting at the best firms.

1719. Who are the people who are to make such efforts? Do you attach importance to having a permanent organisation, or would you have a new committee or commission for each exhibition?—I think the French scheme, by which there is a kind of informal committee, recognised by the French Ministry, consisting largely of manufacturers and all those who are in the habit of exhibiting at exhibitions, or something on that line, might surely be adopted in this country.

1720. Do you mean a society of commercial men, and at the same time some official organisation?—Yes; but I think I would reduce the official organisation to the smallest possible limit; the smallest reasonable limit. I think it would be very desirable to have something of the sort.

1721. Then we come to the question of space; had you any difficulties about that?—Yes; I have had considerable difficulties with regard to space, and I know other manufacturers who have had. For instance, there has never been any attempt made, so far as I know from my own experience, to secure that when a manufacturer was allotted space he would arrange his goods in that space in such a way as to be at all in keeping or in harmony with the firms who are exhibiting next to him. I remember very well indeed that in Paris, in 1900, Messrs. Doulton had a very fine exhibit on one side of the main gangway, and Messrs. Waring on the other. Those exhibits, which were quite worthy of our country, were, in my opinion, spoilt by the people next to them being allowed to put up erections which the American Commissioner described to me as hen-coops. There has been exactly the same thing at Milan this year. We erected, at a very considerable expense, a show of tiles, and we exhibited also a number of artistic vases. Next to us, if you please, there was a firm from Leeds who exhibited trousers-stretchers, and, what was far worse, tried to carry on a retail trade, and their attentions were so importunate that they drove all the respectable people right past our exhibit. Of course, ladies would not have such goods, and they shrugged their shoulders and walked away. That is what I refer to.

1722. It required more superintendence by the Committee, do you think?—I think it required much more superintendence by the Committee. When I spoke of this to the different commissioners they said "Yes, but then you British manufacturers are so independent that you will not take advice." Of course we will not take advice unless the advice is tendered in the proper way, and unless we see the sense of it. We must remember how very differently most of the foreign nations are now arranging their exhibits, and how they are making a comprehensive exhibit by the side of ours—probably with the assistance of some well-known architect. I am quite sure that most of our leading manufacturers would be pleased to fall in with such a scheme as far as they could.

1723. As regards assistance, do you expect assistance from the Commission—that is, not towards the expenses of exhibiting, but in other ways?—I was not thinking of assistance towards the expenses. I was rather thinking of the way in which the representatives of other nations—I am now speaking from my own experience—of what I have myself seen—and I do not wish to go beyond that at all——

1724. That is quite right?—I was thinking of the way in which the foreign Commissioners have aided their own people in making their arrangements. I was in Paris myself for seven weeks arranging our exhibit there. I spent the whole of the seven weeks at the Paris Exhibition before it was opened at all, so that I saw what went on. The English section was used, and was allowed to be used, as a thoroughfare for everybody. We were tremendously hampered by strolling people of every kind and from every country. Our workmen's tools were stolen repeatedly, and we were hampered in every way. I spoke to our officials—not to the Commissioner himself, but to his assistants—and we could hardly get any attention, let alone any redress. I suggested that we might be allowed to put a rope round our space. "Oh! dear, no; that would not be allowed at all." Presently the Americans arrived. They had the next space. They brought all their goods in one ship to begin with, and the ship was provided by the Government, and all their things were put down there. Immediately they arrived they roped off their space, and they put at every entrance, where the workmen were admitted, a porter with the United States badge on and with a truncheon in his hand, and they kept everybody out. The Germans did precisely the same. But as for ourselves, I know I was perfectly sorry for Doulton's man, and I wrote over to Messrs. Doulton myself as to the way their man was being humbugged with his work. Our British officials came to me and said, "Oh! please don't make a fuss; don't say anything; it is much better not." Another illustration: Our arrangement at Paris was like this: Wishing to show tiles, we wanted naturally as much wall-space as possible. I first of all arranged with the Commissioners that I was to have a piece of wall about 30 or 40 feet long, and then I was to be allowed to build out a projecting wall, for 9 feet, at right angles to that, which I could tile on both sides. This was all agreed to; I had their plan authorising me to do it and all the rest of it, and I built it up. One day one of the officials came to me and said, "You will have to take that wall down." I said, "What for?" He said, "The French authorities are grumbling at it, because you are blocking out the vista." I said, "No; I think you are making a mistake. If you remember, I arranged this with you personally." It so happened that it was the same man that I had made the arrangement with here in the offices. "Now," I said, "I have got a drawing from you authorising me to have this wall out 9 feet. I have only built it 8ft. 6in. as a matter of fact—I have been so careful to keep absolutely within the regulations." He said, "You will have to take it down." I said, "I won't take it down." He said, "We will knock down the wall"—absolutely. "Very well, then," I said, "do so; but if you do I will bring an action against you." He said, "The French will insist on your taking it down." The next morning it so happened that I saw M. Picard, the French Commissioner-General for the Exhibition, and I stopped him and asked if he knew anything about this, and he said, "Nothing of the kind; it is perfectly in order; we have never said a word."

1725. Was this an assistant, or was it Sir Herbert Jekyll?—It was not Sir Herbert Jekyll, of course.

1726. There was some misunderstanding, certainly?—I do not know.

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1727. Anyhow, did you take that wall down?—Certainly not. I would not have taken it down for anybody.

1728. You did not take it down?—I would not have taken it down for anybody.

1729. So it ended all right?—Of course it ended all right; only that is the kind of thing we have had to put up with. That is the best illustration I can give you of the way in which we have been treated; and knowing how the exhibitors from other countries have been treated, all I say is that the contrast is, simply, one that I cannot understand.

1730. You have already told us about having unworthy exhibits near you?—I would like to say a little more on that, if I may. That was particularly noticeable at Milan this year. I do not wish to blame any individual, but for some reason or another the Commission, we will say, got it into their heads that they were not going to receive a sufficient amount of support from important manufacturers. I suppose they received no reply to their circular, and they did not see their way to interesting people sufficiently. I can only assume that it was in that way that firms were allowed to exhibit in the British section of decorative art who were a positive disgrace to the British name. I may tell you that this class of firm are known to regular attendants at exhibitions as "fakers."

1731. We have had evidence about fakers before?—There were at least a dozen firms showing there who ought not to have been allowed to exhibit at all. I saw, myself, free fights between their attendants going on. I saw a glass case smashed by a man throwing a stool at a woman—they were the two attendants of one of these firms. The whole thing was disgraceful; it was a perfect turmoil.

1732. I think we can take that from you?—Then I need not say any more about it.

1733. Have you anything to tell us about the question of awards at exhibitions? Are you satisfied with the system that generally prevails?—I do not know that it is altogether satisfactory, but at the same time I do not see how it can be very much improved upon.

1734. You would not do away with awards?—Well, I have never thought of that. I should be inclined to have them. Most people would prefer that they were not done away with, though personally I think it might be a very good thing if they were done away with.

1735. But you think most people attach importance to them?—I think most people do attach importance to them from a commercial point of view—certainly most people in our trade.

1736. From what you have already said, I gather that you prefer the organisation and arrangements of the chief foreign countries at these exhibitions to our own?—Yes, especially those of some nations. I think the French are now rather over-doing it; I mean that they organise the thing altogether too much. In their effort for uniformity, and in their attempt to secure something like unity of exhibits, they have reduced it now almost to a series of shop-windows, which I think is by no means desirable. The Germans and the Hungarians have impressed me very much in recent exhibitions, not only by the order and thoroughness with which they have done their work, but by the way in which they have always managed to secure, first of all, an artistic arrangement. Whatever space they have had, somebody has been empowered, I suppose some first-class architect really, to treat their space as a whole, to introduce into it certain decorative features which might or might not be integral parts of the exhibition—generally they were—and he has contrived in the space, no doubt in conjunction with the manufacturers who were exhibiting, to allot spaces to them which would be suitable for the work they had in hand. It was very noteworthy at Paris in 1900, for instance, to pass from the Danish Section, which was quite small but beautifully arranged, through the British Section and the American Section to the German Section. There you had things arranged as a whole on a sort of architectural basis, and that struck you to begin with. Then, of course, you began to see that a lot of these things—the things which you were looking upon as architecture and as skilful arrangement—were really fine exhibits. You said, "Well, that is a fine exhibit." In the same way, the arrangements made by the pottery firm of Zsolnay and Sons, of Hungary, at Milan were admirable. So also were the arrangements by Villeroy and Boch and the Berlin Porcelain Company in Paris in 1900.

1737. Do you think that the large grants made by foreign Governments have helped towards their getting a better representation?—They have undoubtedly helped, because if the Government makes a sufficient grant, and then says, "Now we are going to secure, as we think it is important for the trade of this country that we should secure, an adequate representation of certain branches of commerce, and we are prepared at our expense to provide general architectural supervision and a scheme which you may come into," why, of course, that is very helpful indeed. Then, again, I know that foreign Governments have in many cases paid for the space of the exhibitors. I do not attach much importance to that myself, but it might be a factor with some firms. I think that, as a general rule, in this country it would not be a very considerable factor, but perhaps with the smaller manufacturers in some of the growing countries, like Denmark and Hungary and Belgium and Holland, that has been a consideration. What I rather feel there also is that the grants which have been made by our Government might have been put to very much greater advantage. Of course, I have no information, and I can only go on hearsay, but I understand, for instance, that the grant which was given for Milan, small as it was, has not been used. If that is the case, I think it is very deplorable, because there we distinctly suffered from the parsimony with which things were done. Had the money been expended we should have had a better result. As the money is not expended, I suppose the Treasury will demand the balance to be refunded, and then next time a grant is asked for they will say, You had only £5,000 or £10,000, whatever it was, for Milan, and you did not spend all that, therefore you cannot need all this money.

1738. Have you thought of any remedies for that in organisation?—Either by officials or otherwise? Assuming, of course (as I believe from my own experience, and all I have seen and know about manufacture) that certainly, for many classes of our trade, an adequate representation of what we are doing in this country would be of very great benefit to us; I think it would be an advantage if a society could be formed, of manufacturers primarily, with, I would say, the smallest number of officials possible, but I would like one really first-class official who could act as chairman or convener of the meetings, and so on, so as to avoid any friction or jealousy.

1739. Would you have a Royal Commission for a large exhibition if we were going to take part in it?—If we had such a standing committee as the Germans have, and as the French have, where the manufacturers themselves are much more taken into the confidence of their Government Departments, and are much more consulted—if we had such a standing committee which could be consulted, their opinion as to whether there should be a Royal Commission for any particular exhibition or not, would, I think, be valuable.

1740. Then you would have a permanent standing body, largely composed of commercial people?—When I speak of commercial people, I mean manufacturers, not merely shippers and exporters. To answer your question. Certainly I would!

1741. I suppose your experience has been almost entirely as regards your own goods, which border very much upon art, if they are not actually artistic products?—Certainly. I wish to confine myself entirely to those branches of English manufacture in which applied art plays a very important part, whether it is pottery, or textiles, or what not; because many of our friends in Lancashire naturally are important manufacturers of textiles, and the best-known wall-paper people in this country are also friends of mine. We have talked this thing over at exhibitions, where we have met and discussed our grievances.

1742. And you think you are representing very much their opinion on this matter?—I do think so.

1743. You do not speak very well of your experience with the officials?—Personally the officials have always been most amiable, but at the same time they have never done anything.

1744. They have not helped you as much as they ought?—No, most certainly not. I could get privileges from the Commissioners of other nations far more easily than I could get them from my own—and have done. The Danish Commissioner and the Hungarian

Commissioner have helped me when my own people have refused to do so.

1745. (*Mr. Algernon Law.*) On what ground, generally, would you justify the grant of public money for exhibitions?—On the general ground that if there is no public money granted every manufacturer is a law unto himself, which I consider is a calamity if you are going to exhibit.

1746. Do you consider that it is necessary that the British manufacturer should exhibit?—For certain sections of our trade undoubtedly, and I think particularly for those sections of the trade where art is an important factor. At the present time it is notorious that English taste in matters of applied art is being more and more highly esteemed all over the world, and that our export of goods of this class, especially of goods of fine quality, is being fully maintained, if not increased. Certainly that is so with regard to pottery. It is the cheaper and commoner pottery that is not being exported so largely as it used to be.

1747. Did you exhibit pottery at Brussels?—We did not exhibit at the Brussels Exhibition.

1748. Did you form any opinion as to the Brussels Exhibition?—In what way.

1749. With regard to its general success from a British point of view?—No, I cannot say that I did. I went there really to study what the foreign potters were doing, and I am afraid I did not do anything else.

1750. In the case of Liège, was there a satisfactory result, in your opinion?—I do not think Liège was very satisfactory in itself, but it gave a satisfactory result to us personally. It inclined us to open up some agencies in Belgium which we still retain, and which we never had before.

1751. Did you take part in the St. Louis Exhibition?—No.

1752. Have you heard as to the results from any of your friends who did exhibit in St. Louis?—Yes. Many Staffordshire potters did exhibit at St. Louis, and I have heard them say they had very good results indeed. I am glad you asked me that question, because it brings to my mind a very important point. The men in the pottery trade who profited from the St. Louis Exhibition were the men who established a good commercial organisation there immediately afterwards, or had one already in existence. I may say that what we call in the Potteries the Big Four—the Meakins's, the Johnsons, and the Grindleys—who export the bulk of their ware, and sell little in this country at all, have tremendously fine organisations both in Northern and Southern America, and they can beat the American potter on his own ground, in spite of the 60 per cent. duty. Those men exhibited, and they all profited by it, I know, because we have discussed this question.

1753. Do you consider then that an exhibition is the best form of advertisement?—It is a very good form of advertisement; but, as I have just said, I think, as an advertisement, it is all right, but it must be followed up on the manufacturers' part afterwards by commercial work.

1754. Have you formed any opinion as to whether all the exhibits in a British section should be collective exhibits, taking pottery, for instance, or whether every exhibitor should be allowed to have his own show? Would you have it all collected together and arranged as the exhibit of a district or a country?—I think every exhibitor should have his own show, but at the same time I think some advice or supervision should be given as to what is shown. I would treat them very carefully, because I do not want to spoil the individuality of any manufacturer. We were asked to take part in a collective show at St. Louis, and I declined, and, as I think, I generally should decline unless the collective exhibit was one of exactly the same class of goods as I was manufacturing. For instance, I declined at St. Louis to have anything to do with it, because there were some tile manufacturers showing there whose tiles are not in the same class as ours at all, and I declined to be associated with them—that is all. They are men who make inferior stuff. Of course, they have just as much right to show as I have from that point of view, only as long as I am a free agent I will not show with them.

1755. Have you formed any opinion what the amount of the grant should be for British participation in an exhibition at a place like Milan; or have you not formed any opinion?—I have formed no definite opinion.

1756. Or as to the utility of having a fine pavilion and spending a great deal of money on that as an exhibit of the country, as it were? Do you think that assists the individual exhibitor, from the point of view of his exhibit, and having regard to the commercial result to be obtained from his exhibiting?—I do, undoubtedly. Think, for instance, of what Hungary gained by their pavilion at Milan, which was unfortunately destroyed afterwards, and rebuilt on a smaller scale. Then Belgium gained at Milan by their excellent reproduction of one of the old Flemish town halls. I know that when I was in Milan those two things were the attractions of the Exhibition, apart altogether from what they contained. I remember, and no doubt most of you gentlemen remember, that there was hardly any building connected with the Paris Exhibition of 1900 which attracted more attention than the English pavilion on the banks of the Seine, which was of course a part of our display, though it was the official headquarters.

1757. The last time we met we were told by a witness that the British pavilion at Paris was looked upon by people as a sort of rabbit-hutch when compared with all the others?—By what kind of people?

1758. Of course that was only an observation?—I can give you the evidence of the sort of men I am speaking about who appreciated that place and thought it was a very striking thing. There was such a man as M. Benedite, the Conservator of the Musée Luxembourg, and M. Georges Vogt, who is one of the chief officials of the Sèvres Porcelain Works, and men of that type, men who were competent to express an opinion.

1759. (*Sir Isidore Spielmann.*) Perhaps they were referring to the interior rather than to the exterior?—To both. The interior certainly charmed them, and the exterior also. They thought it was so simple as compared with the grandiose swagger of the German palace particularly. No doubt to the inartistic person the German palace seemed to be much more important and much more beautifully built; but that was not the opinion of anybody who was really artistic.

1760. When you say you object to collective exhibits, I suppose you allude to pottery more particularly—you object to them for pottery?—I am not quite clear about the question of collective exhibits, and I should like to ask a question myself, if I may. Are you referring to the sort of collective exhibit that has been organised at several exhibitions by the Arts and Crafts Exhibition Society?

1761. No; I am referring to a number of firms manufacturing the same thing exhibiting together, and a choice made from their choicest things?—If the manufacturers are agreeable, certainly.

1762. Would you object, for instance, to participate in a collective exhibit with Doultons and Mintons?—Certainly not—not for a moment. If the firms were of our class, of course I would not object.

1763. I believe Doultons and Mintons exhibited very largely at St. Louis, and had very handsome exhibits?—Yes, they did have very handsome exhibits, but they did not go as a collective exhibit, did they?

1764. They went separately; yet you would not go there?—Our own individual business with that section of America was not sufficient to warrant us in exhibiting there. If there was an exhibition, for instance, at Chicago, or at Toronto, or at Boston, or at New York, I should probably exhibit gladly, because there I have already a trade.

1765. Does your firm often decline to exhibit?—St. Louis was the only time we have declined.

1766. I believe I am right in saying that Messrs. Doulton and Messrs. Minton always exhibit at International exhibitions?—Not Messrs. Minton. Messrs. Minton did not exhibit in Paris in 1900, but I think that was the first time they missed.

1767. At the exhibitions at Paris, Liège, and Milan, to which you refer, what awards did your firm take?—At Paris I think we got two gold medals and two silver ones, or something like that. At Liège we got a gold medal; we only exhibited pottery at Liège. At Milan we got a *grand prix*.

1768. Do you regard those awards as being very useful to you in trade?—I think they are of some use,

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but not very useful. I do not think they are nearly as useful as they were 20 years ago.

1769. Did you take orders at these three exhibitions?—Yes.

1770. To which do you attach more importance—getting a very high award like the *grand prix*, or getting orders?—Getting orders certainly, especially if, as any business man would, he followed his orders up by trying to develop them into a steady trade.

1771. May I put it this way? Would you rather take a *grand prix* at an exhibition than very moderate orders?—I would rather take the *grand prix*, then.

1772. (*Mr. Wilson Fox.*) Why are these awards not so valuable now as they were 20 years ago?—I think they are not so valuable now as they were 20 years ago because people nowadays, I mean the general purchasing public, are inclined to think that they know a great deal more than they were inclined to think they knew 20 years ago, and they attach less importance to the opinion of other people. They prefer to go by what they themselves see.

1773. (*Sir Isidore Spielmann.*) Whenever you take medals, do not the artists who work for your firm get awards also as collaborateurs?—Certainly.

1774. They did at the Paris Exhibition, did they not?—Certainly. At the Paris Exhibition both Walter Crane and Lewis Day got separate medals for the things they had done for us.

1775. (*Mr. Waring.*) Do I understand that you are clearly in favour of exhibitions—you are quite clear on the point that they are of definite value to the British manufacturer?—I think so, in certain trades.

1776. Your mind is quite clear on that point?—Quite clear.

1777. From the evidence we have heard just now, apparently you have great doubts about the methods of conducting, supervising, and administering exhibitions in the past, from a British standpoint?—I have no doubt at all. I am very disappointed with it. I thought it was inefficient, as I have said.

1778. Would you say there was grave inefficiency?—Yes, grave inefficiency.

1779. What would you attribute it to? Would you call it officialism? For example, in regard to information, had you any difficulty in getting it, or could you get it with ease?—We had a difficulty in getting information always. I should say there was a want of commercial training in the men who are connected with the exhibitions as Commissioners and assistants.

1780. Practically it was officialism?—Yes. I do not like to use that word harshly, but I think that that is practically so. I think we agree there.

1781. The next point I want to put to you is that from lack of national support possibly, I take it your impression is that we suffered very much, as regards comparison with other countries; and instead of Great Britain being in the front and having the most effective exhibit, do I understand from you that you consider it was in the end the least effective?—I consider that at Paris in 1900 we had the least effective exhibit of any nation in Europe. I am perfectly certain that hundreds of people walked past your exhibit and Messrs. Doulton's; and besides that, they never realised they were in the British section at all. They walked from the Danish section to the American section, and apart from that they thought there was nothing to see.

1782. Is it your impression that that is the position where the Government should come in and help—that it should be architectural, and a complete effective exhibit from the national standpoint, in the way that the exhibits of Germany, Austria, and the other countries are?—Certainly. I feel that most emphatically; otherwise I think myself that it is absolutely no use going on as we are going on, and that we had far better give it up altogether. Really it has become so ludicrous for us as a nation to be represented by the kind of shows we have had at recent exhibitions, that I would far rather see it done away with if that is all we can do. I think it would be a scandal, though, that such a thing should happen.

1783. Do you think, in point of comparison, it would seem that we are a degenerate nation rather than one making headway against other countries?—No impartial outsider could have seen our exhibits at these exhibitions without feeling—well, if that is all England can do, or if that is the best England can do, then good-bye to England.

1784. So you are quite clear (1) that it is a good thing to have these exhibitions, and (2) that it is imperative, if they are to go on, that we should have better support and better administration?—Absolutely.

1785. Have you any impression with regard to the feeling that existed between France and Great Britain during the Exhibition of 1900, owing to the lack of the *entente cordiale*?—That, of course, was alleged by the officials in reply to my remonstrances. They said, "We are so disliked here," and all the rest of it. "You know what is going on. I should not say anything about it. You had better keep quiet. You had better not press for this, that, and the other." But I thought it was a monstrous injustice both to us and to the French. I was in Paris, as I tell you, over seven weeks supervising our exhibits. I was there altogether three months, and from all the official and all the common people, and everybody else I met, I never received anything but the utmost friendliness and kindliness.

1786. So that you think the feeling you experienced personally with regard to those of our representatives with whom you had to come in contact, and with regard to their manners and their methods, is that those manners and those methods did not help the situation with the French element?—I am sure they did not.

1787. The manners and the methods did not help?—No.

1788. (*Mr. Malcolm Ramsay.*) You began your evidence by saying that if British manufacturers wanted to be represented at exhibitions, certain things ought to be done; what we want to know really is, whether manufacturers do generally wish to be represented at exhibitions?—I think there has been undoubtedly a growing feeling among certain manufacturers that they have been quite sufficiently represented at exhibitions.

1789. Quite sufficiently, do you say?—Yes; in the past I mean. For instance, a few years ago I know that the firm of Mintons rather thought that they had got all that they could ever get in the shape of reputation by exhibitions, and they decided they would not exhibit any more; but I do not think that would be their attitude to-day. On the other hand, we have got a great firm like Doultons—I must confine myself to my own trade, because, of course, I know most about it—and we know that Messrs. Doulton have consistently exhibited, and I cannot conceive that an able business man like the late Sir Henry Doulton would have gone on exhibiting if he had not found the benefit of it. Of course, you have also to remember the position of firms, like my own, which have not all this old-established reputation. There are always new firms coming up who are anxious to have a chance. I know perfectly well that if I were given the chance I could make an exhibit equal to anything; but I would not like to say that I was disappointed in 1900 when the British Commissioners allotted to me what I considered a very inadequate space. In the circumstances then, I could not be disappointed, but if they did it now, the position would be so different that I should be disappointed, and I should say something about it. You must always remember that every five or ten years, in our trade at all events, some firms that were at first either not in existence at all, or if they were were only just getting on their legs, have become real factors in the trade; while some of the old firms will not now be so important as they were 20 or 30 years ago. So that if some of the old firms tell you, "I do not intend to exhibit any more," that should only be taken, I think, as representing their individual view, as there may be somebody else coming on who is most anxious to take the place that those celebrated firms occupied 20 years ago.

1790. As far as regards your trade, you think that exhibitions are a good means of advertisement, do you not?—Certainly.

1791. And you approach the question from the point of view of advertisement, do you not?—Yes.

1792. Whether the benefit results directly in the shape of immediate orders, or indirectly in the shape of subsequent orders?—Yes, partly for that reason; or as, for instance, happened to us at Milan. When we were awarded the *grand prix* at Milan we received inquiries from first-class houses, giving us very good

trade references, from Nice, from Hyères, from Florence, from Rome, and from Naples—firms that we might have spent years in trying to get at in towns where we might have sent a traveller for years and never discovered them, or never got anything out of them at all. Merely because they had seen our exhibit, and had found that we had been awarded the *grand prix*, and because they liked our stuff, they themselves opened up negotiations with us, and we have been able, through that, to open important agencies in all those places.

1793. That is a question I wish to ask you, whether you consider for your own business an international exhibition is a better means of pushing trade than your own private enterprise?—Our own private enterprise will do a great deal, but an international exhibition will supplement private enterprise, or will originate it even. After all, in an international exhibition you have two advantages: you have the advantage first of all of bringing your goods directly before the dealer, and you have also the advantage of bringing your goods more or less directly before the consumer. I send a traveller to Germany and all round Europe every year, and sometimes I go myself. If I go myself I can be sure of seeing the principal of the firm; he will see me, because I am a principal in my firm. But if I send a traveller he very seldom will see my traveller, and my traveller has to see his salesman, or his buyer, or his somebody else. This particular buyer may not like my goods, and he may say, "No, thank you, it is no good to us at all." Whereas if the principal—who is, I think I may say, taking it generally, a more cultured man, and knows better probably than his subordinate—saw those things, he might say, "Yes, I like those things very much, and I will buy them." Then in an exhibition you have the public coming, and if they are very much taken with what they have seen at the exhibition, then, of course, they go to the people with whom they are in the habit of doing trade, and say, "You know at our exhibition we saw some stuff made by a firm named So-and-so; have you got anything like it?" If that is repeated often enough, then, of course, it comes round to you, and the firms begin to say, "I want to see some of your stuff." I know the managing director of the Copenhagen Royal Porcelain Works, who is a very good friend of mine. He has been to my place, and we have talked over that question. The previous director was his father-in-law, who was a senator, and a very able man. Both these managing directors have said to me that the Copenhagen Royal Porcelain Works, which is to-day one of the most successful of the porcelain works in Europe, would never have built itself up in the time it has done had it not been for international exhibitions. An international exhibition, precisely in the way I have indicated, enabled them to break ground in a new place. They always got a good award, and their exhibit was always of a very interesting character, so that they found somebody in the place where the exhibition was held—the best house in the town probably, or one of the best houses in the town—anxious to become their agents. I know that is how they built up their trade. The success of the Copenhagen porcelain industry is almost phenomenal, considering that a few years ago Copenhagen porcelain was unknown.

1794. I think you said you declined to go to St. Louis, did you not?—Yes.

1795. On the ground that you would be showing goods against firms that were not of your own standing?—Not merely against, but in conjunction with.

1796. Do you find that second or third class firms are keen to go to exhibitions?—Of course, occasionally even a second or third class firm is bitten with a very laudable ambition to do something better, possibly to get an award at an exhibition even; and every now and again one of these firms makes a "splash," as we call it, and tries to do something. This is a very difficult question. I do not want to be unfair to anybody, and certainly I do not want to be unfair to my fellow manufacturers who may not be as successful or as competent as we are; but I would like every manufacturer to have his chance. At the same time, I think if we had a committee composed of business men it would be possible to form some opinion as to the rank and standing of the people proposing to exhibit.

1797. Do you think that the fact of second or third class firms going to an exhibition from which you were absent would affect your business or your trade?—I can tell you what happened in St. Louis. I am not at all sure that I acted wisely with regard to St. Louis. A firm—whose articles were, I considered, very inferior to mine, and ought not to have been exhibited in the same class—did for a time temporarily take away a portion of my trade in America, because they exhibited in St. Louis, and I did not. I got it back again, but probably both that firm and myself lost money in the getting of it back again.

1798. You did get it back by your own methods?—Certainly.

1799. And not by another exhibition?—That is so. Had I been represented there, they probably would never have got it in the first place, and I should still have maintained my price, which is much more important.

1800. That leads me to the question of expense. I suppose, having regard to the benefits of which you have been speaking, you would not refuse to bear the expense occasioned by your being represented at any foreign exhibition?—I never have. I have never looked upon that as a very important matter; and in reply to an earlier question from a member of this Committee—I do not know whether it was the Chairman or some other gentleman—I said that, as far as I was concerned, I had never looked, even, at the question of the payment for space; but I know that in some of the smaller countries of Europe, especially where there are small manufactures, this space question is a determining factor, and so in many cases the Government have taken the space, and the individual exhibitor, who must have been a selected exhibitor in that case, has paid nothing for his space.

1801. May I take it that, so far as you are concerned, the advertisement you get out of an exhibition makes it worth your while to go to the expense of freight and space and of employing an agent?—We have always considered it to be so.

1802. Would your colleagues in the pottery trade generally hold the same view?—Generally they would. I do not mean to speak in any invidious sense, but a large firm conducting their business with liberal ideas, I think, would generally hold that opinion.

1803. I presume you think it very important that Great Britain should be represented abroad by the best firms?—Certainly.

1804. And that we ought not to subsidise the second or third class firms as representatives of British trades?—Quite so.

1805. Coming now to another point, does your experience enable you to say whether certain trades lend themselves much more readily to exhibitions than others do?—Yes, I think that is undoubted. There are many trades, what I should consider bulk trades, that is, trades in which bulk—or, in other words, the amount of output—is the important factor, and in which art of any kind has comparatively little influence. I should say that perhaps those trades are not very much influenced by exhibitions. For exhibition purposes I consider that everybody should try to make a display. I do not want them to make the kind of swaggering display which the German considers it necessary to make, but I do think an exhibitor ought to make a display. He ought to show fine things, and he ought to show things which are not necessarily in the way of trade. I was going to say a moment ago, when you were talking about the benefits that a firm or a country or an industry derives from an exhibition, that one of the benefits I think a firm or a trade derives from an exhibition is the fact that if you are going to have an exhibition, and show against your compeers in Germany and in every other country, it puts you on your mettle, and you probably, for that exhibition, do something new or invent something or try to make something a little better, which is not without its good influence all over the works, I assure you.

1806. But the fact remains that some trades may get very little direct benefit, and perhaps very little indirect benefit, even from exhibitions?—I think that is so.

1807. That would be a point to bear in mind in determining the extent to which the Government should subsidise participation in exhibitions, would it not?—Hardly in determining the extent, I think, to which the Government should subsidise, but certainly in determining the groups of trades or the kind of trades that ought to be approached officially and

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asked to join in a scheme. For instance, as a mere commercial man I was very much struck with the people who had the next show to us in Paris in 1900. They were a firm in the West of England—I think, of Bridgwater, manufacturers of roofing tiles and things of that kind. They had an admirable exhibit for their own purposes, but I could not help thinking that if these people had only known the conditions of trade they would have seen that it was quite impossible for them to do an export trade to Germany or France or Switzerland or Italy, or anywhere off the seaboard of Europe, in goods which are so heavy and so cheap as those. That was a failure on the part of the manufacturer really to consider whether the exhibition would be likely to benefit him. Of course, on the other hand, the firm might have found that so many English went to the Paris Exhibition that it paid them with their English trade; but that I do not know.

1808. There are certain trades which may get very little benefit out of an exhibition?—I think many of the very large trades of this country could hardly hope to get much direct benefit.

1809. Therefore, in speaking of the benefit of exhibitions, you cannot say that the benefits accrue equally to all classes of industry in this country?—Certainly not.

1810. May I ask whether you have formed any opinion as to whether British industry has really been adequately represented at any exhibition of which you have had experience?—I suppose it is almost a matter of common knowledge that British industry, as a whole, has never been adequately represented at any exhibition since the London Exhibition of 1862 or 1861, whichever it was. That was before my time, and I can only go by what I am told about it. I do not think British industry, as a whole, has been adequately represented at any exhibition I have been at.

1811. Perhaps you would say it is not possible to do it, having regard to the complication of modern methods?—I think unless you organise an exhibition in London once again—and about that I see very great difficulty—it is not possible to do it. Our industries are so complicated, they are so varied, and they are in their volume so enormous, that if Great Britain cared to make a real exhibition of what it could do there would be no room for anybody else.

1812. You were speaking about the difficulties that you had in connection with the officials at Paris, and instanced the case of your 8 ft. 6 in. wall; did you ever discover whether your representations on the subject reached the British Commissioner?—I think I remember saying something to Sir Herbert Jekyll about it afterwards. I told him that I was very much annoyed that I should have been treated by his subordinate in the way I was, and told that I should have to take the wall down. I said, "As an Englishman, I resent being told that I have got to do this, that, and the other, when I have already been told how I have got to do it, and I have done it that way." I said, "If I am treated in this way again I shall certainly complain at home, and, moreover, if you had dared to do it I would at any cost have brought an action against you for doing it."

1813. Did you ascertain whether the orders had emanated from Sir Herbert Jekyll?—I do not think they had. I think that, on the whole, the general organisation of the Commission has been inefficient, that the subordinate officials have not known enough for their work, and that they have not treated the British exhibitors with reasonable courtesy. They seem to me to have forgotten that they were the servants of the State.

1814. Have you any reason to suspect venality on their part?—None whatever; quite the contrary.

1815. Did you find that the British officials were always available when you wished to consult them?—No. At the Paris Exhibition of 1900 they were often absent, and on one occasion I was three days and could not find a responsible British official.

1816. With regard to future exhibitions, would it meet your views, as far as you are concerned, if the Government were to provide an efficient organisation, and confine its activity to procuring space, but did not assist financially?—That would not satisfy me. I do not want financial assistance as to the arrangement of my exhibit, but I want somebody to do a great deal more in the direction of organising the general British exhibit than has been done in the past. I do not know how that body is to be constituted. That is a question for very grave consideration. Whether it should be an official body or not I do not know, but an official body might be the very best for the purpose, because it would be free from any question of jealousy or of appearing to favour any particular trade or section of a trade. What I do most emphatically feel myself is that, first of all, we want a body which shall organise the decorative arts or applied arts of Great Britain, shall house them suitably, arrange them suitably, and shall compel, if necessary, their adequate arrangement. Of course, there will not be much compulsion required. It is competent advice really that is needed as to how a manufacturer can best display his goods in harmony with the needs of the rest of the section. I want our section to be treated as a whole; I do not want it to be a higgledy-piggledy arrangement.

1817. (*Mr. Wilson Fox.*) An expert in the trade would have to assist in the arrangement, would he not?—I have suggested earlier, in replying to some other question, that I thought this would best be managed by a standing committee (which might be selected by the various Chambers of Commerce or might be selected by the Board of Trade, or might be selected in a dozen different ways), consisting of manufacturers primarily, with perhaps a chairman who was an independent official chairman—a chairman appointed by the Board of Trade, if you like—who might have under him two or three clerks only.

1818. (*Mr. Malcolm Ramsay.*) I suppose you would find it impossible to suggest any figure as the amount of the grant that should be made for the various classes of exhibitions?—I think that is a question which must be treated absolutely on the merits of each case. For instance, if it were proposed to hold an exhibition, say, at Stockholm, I do not think that Sweden offers a very favourable field nowadays for English manufactures of my kind. They have very good manufactures of their own, and, moreover, they are very well represented. I know that Mr. Robert Almstrom (who is the head of the porcelain works there, and who is a Swedish senator) said to my friend Mr. Grindley, the potter, "Oh, I see you are breaking into my market; I will have the duties put up." If it were proposed to hold an exhibition in Stockholm, so far as our trade is concerned, I think English manufacturers would be wise to stay away, unless they produce something which is not made in Sweden at all—something of a certain class or of a certain artistic value which might tempt people entirely apart from the question of price.

1819. Do you think that British trade, or your trade in particular, got much benefit out of the £100,000 that was spent at St. Louis? Was the direct commercial advantage at all in proportion to the size of the grant?—That is a very difficult question to answer, because whatever may have been the tendency of business in our particular trade since that time, it is difficult for me to separate the influence of the St. Louis Exhibition from all the commercial work that has taken place since, and from what is going on in commercial pottery circles in America. The men who are most concerned in the American trade—I mean in the big bulk American trade—the men who supply the hotel pottery from Boston to San Francisco, and from New Orleans up to Toronto, supply all the hotels, railway companies, and everything else, and their trade this last year has been the biggest trade they have ever done in the States. But how much of that is due to the St. Louis Exhibition, and how much of it is due to the fact that the American manufacturers, thinking they were quite safe behind their 60 per cent. duty, began to make worse stuff—stuff that crazed and did not wear, and all that sort of thing, which undoubtedly happened—and how much of it is due to the commercial energy of these men who work the States particularly for all they are worth, I do not know. It is impossible between those three factors to say this belongs to the exhibition or this belongs to the other thing. But the general fact remains that in bulk we are doing more trade with the United States of America to-day than ever we were in our particular line of business, and that is not confined to the cheap goods only. A leading English firm, for instance, I know, do not know, and have not known for the last two years, how to turn out enough of their expensive things for America; and that absolutely depends on their reputation and on the quality of their goods. If they lost that reputation they would lose it all. A few years ago the goods of Haviland, at Limoges, made rather a serious inroad into English

porcelain in the States. It was all round. Haviland had something fresh to offer. The Englishmen had rather gone on doing the same old thing for 20 years, and Haviland did a new thing, and for a time Haviland swept the board. In June last a man from the States was in my place, and I said, "I suppose you are going to Limoges?" "No," he said, "I am not going to Limoges. There is nothing there to see any more. I can buy all I want in the Staffordshire potteries and in Copenhagen." He does not go to Dresden any more, he does not go to Berlin any more, and he does not go to France any more. He buys all he wants in the Staffordshire potteries and in Copenhagen. But I know that his people some years ago did a tremendous trade with Havilands.

1820. Then you think the St. Louis Exhibition counted for something?—It undoubtedly counted for something. I have no doubt whatever about it.

1821. (*Mr. Harris.*) Did I rightly understand you to suggest just now that your own firm's eminent position commenced about 1900?—You say "our firm." Our present site was a field in 1892. Up to that time I had been chemist to the Wedgwood firm. Then my particular branch of the Pilkington family, who are great colliery-owners in our district of Manchester, approached me on a question of technical interest connected with brick-making. I said, "You could do something better than brick-making out of this, and you had better start on making something else." "What could we make?" "You could make excellent tiles out of this; it is splendid stuff." We started business, and I built the works. In 1892 we were not born, and it is only fair to state that 1900 would be the first time when we were really ready to show at an exhibition.

1822. My point is this: Do you, or do you not, date your success from the Paris Exhibition itself, owing to your exhibit there?—We do not date our success, in any way, from that; but certainly the Paris Exhibition gave us a reputation, as a firm, all over Europe that we would not have got in any other way in the same time.

1823. Then, in spite of all the disadvantages, it was a great gain to you?—Certainly; it made us known all over Europe.

1824. You said that you did not go to St. Louis as an individual firm, partly because, though you had business in other places in the United States, you knew there was no business to be got there?—Yes; we had tried St. Louis before, and all that district.

1825. Why could you not push your trade there—*i.e.*, as a new area?—St. Louis is very far inland. It is rather a curious situation. The American tile works are all either in New Jersey or in Ohio, and there are certain towns in America where, even on the cheapest tiles, we have just the advantage.

1826. To come to another point, namely, your suggested committee, consisting of business men, to supervise the arrangements leading up to exhibitions, do you think there would be any danger of the big firms, who would mainly be represented on that committee, crushing out the smaller men who are anxious to exhibit?—I think possibly there is a danger of that taking place. That is one reason—it is only one reason, but it is an important reason—why I should suggest that there should be an independent official chairman of this body, who would be open of access to everybody, and to whom the small manufacturer, if he found any injustice was being done to him, could appeal at once, and be perfectly sure that his appeal would be heard and understood. If, for instance, we had somebody like Sir Alfred Bateman in the position of an independent chairman, that would be an admirable arrangement. I do not suppose Sir Alfred Bateman would take it, but still I cannot think of a better man for the position. I am quite sure that everybody in the Potteries would feel, if Sir Alfred Bateman were in that position, "I can go to him, and he will not allow injustice to be done if I can prove that it is being done."

1827. Taking your statement that better arrangements were made for getting manufacturers to exhibit at Glasgow than were made at Milan, is not the real point there that the conditions at Glasgow were quite different from those at Milan?—That is a point, certainly, and I am very glad that you have raised that point. Naturally, of course, a market like Glasgow, which is a home market, and a very important market in our section of the trade, appealed to everybody. That was only common sense. But the manufacturer might very well say, "I do not do any trade in Milan, and it is no use sending tiles or pottery to it, because the Ginori factory or somebody else can make these things just as well as we can, and we shall have no chance at all." But that was not the only factor. I said very carefully that at Glasgow they had a man like Sir James Fleming, a well-known Glasgow citizen, and a very well-known pottery manufacturer—he is very well known personally to most of the Staffordshire men. Sir James Fleming was on their committee, and he wrote round to all the men he knew, and he said, "Look here, I think you ought to come and support us." It is that sort of personal influence that is wanted. If you can get the right men on this committee, that is the kind of personal influence that they can exercise, but it cannot be exercised in any other way that I can think of. I am quite sure that if someone of some standing in our trade, as Sir James Fleming is, or the late Sir Henry Doulton was, or some other men I could name, had had the organisation of an adequate representation of English pottery at Milan put into their hands, they would have secured easily an exhibit which I do not think you could have got in any other way.

1828. (*Sir Swire Smith.*) Do you think the time has come when there ought to be a great international exhibition held in England?—I have thought so for some time; but you see the factors which go to make up the success of an international exhibition from the commercial point of view are so varied that I am almost forced to the conclusion that the only place which ought to have an international exhibition any more is Paris.

1829. If we are not to expect that we are to have a large international exhibition here, what is the good of this permanent department that you speak of?—I would not confine this department to international exhibitions. There may be exhibitions of British manufactures as there were at Glasgow and Wolverhampton, for instance. They called themselves international exhibitions, but to a large extent they were national exhibitions. It is quite true the French had a small section, and the Danes had a small section, and so on; but the bulk of the exhibition in Glasgow, which was a very good exhibition indeed, was a national exhibition—it was representative of England, Scotland, and Ireland. That kind of exhibition, I think, might be of very great service in our own country. For instance, there is to be an exhibition at Dublin, and I have arranged to show there, and I shall show all I can there.

1830. Would you consider that in the case of one of these smaller exhibitions the Government should practically run it?—No, I do not want the Government to run it. I am against the Government running it.

1831. But you would expect the Government to be at the head of the great international exhibitions?—I should expect the Government to do the kind of organising which no individual firm can possibly do. I should expect them to advise rather than do anything else.

1832. And not to aid financially?—Not in our own exhibitions, because there does not seem to be much need for it. For instance, you could, with Government assistance, get an exhibition of British manufactures of certain kinds in London here, and that, I think, is an exhibition which the Government might very wisely aid.

1833. Would you consider that, even for the possibility of international exhibitions being held, it would be worth while that we should have a permanent department who could rally these other committees round it?—I think so; I think there ought to be something. I do not care how small and how simple it is; I would have it as small and as simple as possible, but I would have something in the shape of a bureau, if you like, where everything could be filed and pigeon-holed, and where every information about exhibitions and the conduct and organisation of exhibitions could be kept for reference and could be used. It might be the smallest department possible.

1834. From your point of view, the object of an exhibition would be to show the best of every industry?—I think so.

1835. And in order to get at the best, you would favour collective displays generally, would you not?—I am afraid I cannot give a general answer to that question.

Mr. W. Burton. 25 Jan. 1907.

1836. With regard to your own industry, you are not so particularly favourable to a collective display, I gather?—No, and I think with regard to most of the other industries there might be some difficulty. Take, for instance, the wallpaper industry. You have now got a wallpaper syndicate, which is all right; but suppose the wallpaper syndicate said to you, "Very well, of course we are the people; we do the trade; we will arrange this exhibition for you," then I would say, "Yes, but what about Jeffrey and Co., and what about John Lines and Co, or other independent firms?" They would say, "Well, of course we have nothing to do with them." No, but then Jeffrey and Co. make the most artistic wallpapers that are made in England in our own time.

1837. Would you not say that the only means whereby you could be sure of having the best of an industry would be to have this committee, who should select the exhibits?—I think so.

1838. Then it is not a question so much of selecting firms as of selecting objects, or selecting products?—I would like to say myself that, although as an Englishman I am rather an independent man, and I like to go my own way, at the same time I have seen so much benefit derived from the way in which foreign nations have to a certain extent subordinated their individual interests to the general good, that I am anxious to see some scheme tried whereby the thing should go as a whole, and in which every manufacturer, whoever he was, should more or less consider his neighbour as well as himself.

1839. That would mean a collective display, would it not?—I do not see why it should at all. I have never seen a collective display of German pottery, and I have never seen a collective display of Hungarian pottery. At the Hungarian Exhibition Zsolnay had his show, and Arendts had their little show, and somebody else had their little show. They were each fitted into a general scheme, and there was no interference with their individuality; so that I cannot call it a collective exhibit.

1840. Then generally, of course, you would favour that there should be some choice by this representative committee?—Undoubtedly.

1841. So as to secure that a particular industry was shown at its best?—Yes, certainly.

1842. Yet you would allow individual displays also?—I think the best result would be got by individual displays. May I give another illustration? This is a very important point, and one about which one does not want to be dogmatic. For instance, the great firm of Villeroy and Boch, who have seven or eight factories all over the German Empire, and are the largest potters in the world at the present time; manufacturing pottery of every kind, beginning from the commonest and cheapest floor tiles, or wall tiles, which are sold by the thousand and sent away in truck loads, up to earthenware and porcelain, and everything of that kind. Villeroy and Boch had an exhibition of what I may call their ordinary pottery as a part of one of the sections of the German show. But Villeroy and Boch were also authorised, owing to their reputation and position, by the German Commissioners to decorate all the columns that supported the roof with their mosaics. They also arranged the big mosaic sign that went over the German arch.

1843. (*Mr. Malcolm Ramsay.*) Was this the Paris Exhibition of 1900?—Yes. Another time, in addition to having a little show of fire-places and things like that, they were asked to supply the fire-places that were actually built in the section of the German officials. Another firm had been allowed to exhibit a bathroom there, and as a matter of fact, they tiled that bathroom with tiles that had been bought from us; which I thought was the smartest thing I had ever seen in my life. We had made the tiles for a Berlin architect; we did not know who they were for or what they were for, but we found them there.

1844. (*Sir Swire Smith.*) You think the effect of these exhibitions is really beneficial?—I think that in certain trades it is beneficial undoubtedly.

1845. And you would consider that the holding of an international exhibition in England would be beneficial for us, as well as for the foreign visitors who might see it?—Yes, I do think so—that is, of course, if you can hold it on an adequate scale; but a small international exhibition in London I do not think would do any good at all. If you propose to hold an exhibition in London on a really adequate scale, I am frankly puzzled where you are going to hold it—I mean where you would get any site central enough.

1846. Would you consider, speaking generally, that it would really be a great benefit to the nation as a means of giving information?—I think it would be a benefit to the nation.

1847. What is your view with regard to the effect upon manufacturers in keeping them alert?—Again, I keep to my own industry. There is a little hand-book published for private circulation, by the late Mr. R. W. Binns, of the Worcester Royal Porcelain Works, a copy of which he presented to me before he died. This was a record of the progress of the Worcester Works in the fifty years from 1850 to 1900 practically, though it might have been from 1845 to 1895—I do not remember. I have often looked at this book to see what it was all about—I mean what Mr. Binns really had learnt. I think he had not learnt his lesson properly, if I may say so with all deference to such a gentleman. He was a very able man in his way, but what he did not apparently see was the real meaning of the years when they were exhibiting—London in 1851 and 1862, and Paris in 1867, Vienna, Philadelphia, and so on. He gives a chapter to each of those exhibitions, and he shows the efforts that were made at Worcester to have a fresh style at each exhibition, to have something better, to do better things than they had done before, or than any of their Continental rivals were doing. At the last four or five exhibitions the Worcester Porcelain Company have not exhibited, and we hear of no new Worcester style of ware.

1848. Reasoning from the example of Worcester, would you say that indicates the influence which exhibitions have exerted upon all firms that are in the habit of exhibiting?—I think so.

1849. It really spurs them on to new things?—I think it does spur them on to new things.

1850. Would you say that just as it is good for the public to see, and good for the manufacturer to make, so has it the same influence upon the workman in keeping up his pride in his work?—Undoubtedly. In our trade every firm that has made a good exhibit, either at Paris or at London or anywhere else, has always taken good care to take over the workmen who have been mostly concerned, to see their own work, and to compare it with what has been done elsewhere. I know Wedgwood's, Minton's, Doulton's, and the Worcester people have over and over again sent twenty or thirty of their principal workmen and artists at a time to these exhibitions to see their own goods and those of other nations. We did the same at Paris in 1900; we sent twenty of our people there.

1851. Would not the argument with regard to Stockholm apply to all exhibitions? You said that a maker there said, "If you send, we shall put up the duties." Would not the makers of any goods say that, and would they not use all their influence to keep you out of their particular country, and would that not be a reason why you should not exhibit?—No, it would not be a reason why one should not exhibit. Of course one must always look upon the volume of trade that is possible in a country. Sweden, for instance, is not a wealthy country. It is a comfortable country; but the number of wealthy people in Sweden is relatively small. It is largely an agricultural and pastoral country, where the wants of the people are few and comparatively simple. The things we want to export are not the kind of things that would be bought in Stockholm in any large quantity. That is really why, I think, if we were asked to go to Stockholm there might be some reason why we should not, unless we made something here that they cannot make; but if they can make what we are making, then why should we go?

1852. Do you think that our British industry, your own trade in particular, has learnt much from visiting foreign exhibitions?—Yes, I think it has.

1853. Therefore the continuing of these exhibitions would probably tend as much to our benefit as to the benefit of anybody else?—I think now it would probably tend more to our benefit than to the benefit of some other peoples because we have allowed other peoples to do certain things in regard to pottery, while we have been content to go on marking time. So now I think, we might get some of the benefit that in the past these nations had from us.

1854. (*Sir Isidore Spielmann.*) Have you any experience of any of your exhibits being copied? In other words, have others reproduced your designs?—No. I

have had no experience of that kind. May I tell you something that I learnt when I was at Wedgwood's as to the copying of designs, although it is altogether apart from exhibitions? A well-known Dutch manufacturer visited Wedgwood's works, and as his firm was an old firm, just as Wedgwood's was an old firm, Mr. Godfrey Wedgwood, the then head of the firm, who was a most admirable specimen of the cultivated English gentleman, treated this man very nicely indeed, and took him round the works. and showed him practically everything. He said, "I suppose we both make these things, and you know all about it," and so on. Mr. Wedgwood told me this himself. But he said, "You know I was horrified about six months afterwards to discover that these very people were selling in London absolute imitations of our ware. I wrote him about it, and he said, 'Oh! certainly, wherever he went he always kept his eyes open, and as there was no international copyright he did not see why he should not do so.'" For myself, I have never suffered at exhibitions from that. Nowadays, the means of communication and of general travelling about are so different from what they used to be, that you do not need to wait for an exhibition to know what your trade rivals are doing all over the world. I know perfectly well what they are doing, and I expect them to know equally well what I am doing.

1855. (*Mr. Wilson Fox.*) When you said that you had learnt something from other people by showing at exhibitions, did you mean that you had learnt something by which thereafter you could improve your own methods?—Yes, I certainly meant it in that sense.

1856. May I understand generally from your evidence that a firm which has something new to show, or something better than other people to show, gains by sending an exhibit abroad?—I think so, absolutely. If I may supplement that, I think there are two classes of firms who gain by exhibiting abroad. First of all, there is the firm which has got something absolutely fresh to show, or which has never shown at all before, which very likely has no trade in that particular country, and wants to get some. I think they gain, first of all. Then there are the other firms who have already established a considerable foreign trade in that particular country, and are anxious to retain it.

1857. Also showing at a foreign exhibition would give a manufacturer here, who has not made a reputation, a chance of making a reputation?—It gives him a certain *cachet* certainly, both at home and abroad.

1858. You have been at several exhibitions, have you not?—Yes.

1859. As regards the future, can you give us any idea as to what class of foreign exhibition the British Government should support? You see there are a great many cropping up nowadays, and there are large ones and small ones?—Certainly.

1860. Could you give us the benefit of your ideas upon that point?—I think that if the matter were looked at in a right light the British Government might reasonably and properly give support to every class of exhibition in measure. For instance, a few years ago there was held in Turin an exhibition of decorative art. I am not quite sure about this—Sir Isidore Spielmann will know—but I know Mr. Walter Crane had a great deal to do with it, at all events, and I think he organised the British section. I know some of our things were shown there—some things which Crane and Lewis Day and Voysey had designed for us. I know that was the means of influencing Northern Italy with regard to English goods, because in certain lines it turned the attention of the Italian architects and others to English tiles, English wallpapers, and English textiles. I happen to know firms in each of those lines which have directly benefited from that exhibition, although it was only a very small thing, and a very special thing, and a sort of thing with which the Government, as a Government, had nothing whatever to do. I mention that as a case where had it been necessary—it was not necessary, because I think the Italian Government defrayed the whole cost of this particular exhibition—a few hundred pounds spent by the Treasury in supporting such an enterprise would, I think, have been money well spent.

1861. That was an exhibition which only consisted of the exhibits of a few trades?—There were very few trades exhibiting there.

1862. Would you make any distinction between the exhibitions which are supported by foreign Governments and those which are not supported by foreign Governments?—I do not think I should, provided always, of course, that whoever was responsible for this spending of the nations's money, and this expenditure of the nation's energy and time was convinced that the thing was worth it. There might be exhibitions organised, for instance, which from a commercial point of view would be of very little value to most trades. But then, I think, if we had any body of men who were considering this question they would say at once, "This does not seem to us, as business men"—of course, I agree they may make mistakes; we all can make mistakes—"that it is an exhibition that is going to be good enough for it to be of any value to any of our trades."

1863. With a better organisation, if I understand your view, more traders and manufacturers could be induced to show?—Certainly.

1864. But if the Government took part in almost every exhibition of any sort that came into existence on the Continent, would not our people get rather tired of being continually asked to show, and would not they be rather surfeited by exhibitions?—If you always went to the same people, probably; but I take it that you need not always go to the same people. For instance, in some countries it might not pay manufacturers in any given trade. Take the pottery trade. If you were having an exhibition, we will say, in Siam, there is a man in the Potteries who is already doing a trade in English earthenware in Siam and Southern China through Siam. Naturally it would help him if you had a show at Bangkok, and he would like to go and show there; but if you asked me to send to Bangkok I should say, "No, thank you." You see the conditions are different.

1865. Then in that case it would be very difficult to get a representative exhibit of pottery?—Why?

1866. Because, for instance, supposing you and Minton's and Doulton's took that view, we should only get this one gentleman at Bangkok?—I am citing Bangkok as an extreme illustration of one side of the question; but yet, I think, it might be good for the trade of the country that even the man who is making the stuff that is sold in the market at Bangkok, say a remote place from the centre, should be helped. If you came nearer home, if you came to one of the European cities, then I think you would get a much more representative show all round.

1867. Is it your view that there ought to be practically no limitation to the number of exhibitions which the Government should support?—I think it would be very difficult to lay down any hard-and-fast rule, and I think that probably, in practice, it would be found that there ought to be limitations; but I think those could only be considered as they arose.

1868. I just want to put this to you: Some of these smaller exhibitions are probably promoted by people who have got axes to grind?—Yes, that may be so.

1869. It may be done to benefit the hotelkeepers in a particular district, say?—Certainly.

1870. Or to benefit the railways, and so forth?—Certainly.

1871. If it were found that certain small exhibitions were promoted rather with those ulterior objects, do you not think that the Government of Great Britain should be careful to examine the particular reasons for which an exhibition was promoted?—If there was such a bureau or organisation or office as I have suggested, surely part of its duty would be to accumulate information which at present seems to be plentifully lacking? As to the exact result, either to trades or to individual firms exhibiting, after an exhibition of this kind, if you had a body such as I have suggested, surely one of its duties would be to address a series of questions to manufacturers, "Were you satisfied with the results?" and so on, and asking them to give a few simple reasons for their answers. In that way you would tabulate a mass of information that would be invaluable in the future.

SEVENTH DAY.

Friday, 1st February 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
The Rt. Hon. Sir James Kitson, Bart., M.P.
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Swire Smith.
Sir Isidore Spielmann.
Mr. S. J. Waring.
Mr. U. F. Wintour (*Secretary*).

Mr. Walter Francis Reid called, and examined.

Mr. W. F. Reid. 1 Feb. 1907.

1872. (*Chairman.*) Can you tell us what your experience has been in connection with exhibitions?—I have visited most of the large international exhibitions, I think, that have been held in this country and in others, with the exception of Chicago; I did not go to Chicago.

1873. You have been juror at several exhibitions, have you not?—Yes, I have been juror at a number of different exhibitions and shows, and I generally judge for the Royal Agricultural Society in this country.

1874. On what particular branches have you been judge?—At the St. Louis Exhibition I was vice-chairman of the Liberal Arts Department Jury. The Group Jury that I went out on was chemical and pharmaceutical.

1875. Are you a chemical expert?—Yes, I am a technical expert. I was vice-chairman of the jury for the manufacture of paper—that was a speciality of mine—and I was also vice-chairman of the Department Jury for Horticulture. I am a gold medallist of the Royal Horticultural Society, and so I had some qualifications for that, and, being there, they made me work. Then I was also a member of the Group Jury for Aerial Navigation at St. Louis, and am honorary expert to the Aero Club of the United Kingdom; so I have some qualifications for that also.

1876. Indeed, you had very wide qualifications?—I have been at it for a good many years, and I have been active all the time. I was a member of the Sectional and Group Juries at the Milan Exhibition, and I have been a Governor of the National Physical Laboratory.

1877. I think you have told us quite enough of your qualifications for speaking to us on international exhibitions. Have you formed any opinion as to the effect of exhibitions on the manufacturing and exporting trades of this country?—I think, on the whole, they encourage trade, and must encourage it.

1878. What has the effect been on British arts?—I think in British arts that we have decidedly learnt a great deal from our foreign, I will not say competitors, but colleagues, and that we have profited in every way by exhibitions as regards arts generally. When I come to remember the first exhibitions to which I went, and compare them with the exhibitions that are held now in this country and elsewhere, I can hardly fail to see that enormous progress has taken place within those years.

1879. Have you anything to say to us as regards the general commercial relations between the countries concerned?—There has been such a very great improvement in the commercial relations and in the personal relations between the different nations within my recollection, that it is rather difficult to earmark, as it were, what part is due to the exhibitions themselves. Having been at many of them, I know that those who attend such exhibitions make many friends and establish many business connections. There can be no doubt that from that point of view a large number of the first people connected with arts and industries meet each other in the same way as at international congresses, of which I have attended a good many also. I think it promotes the intercourse and the trade of nations.

1880. Is that because of the personal element?—I think if persons meet and are friendly with each other the business comes of itself.

1881. As regards the industries and the exhibits, what are the particular industries or classes of industry which have chiefly benefited, in your opinion? Would you say chemicals, or china, or iron and steel, or what?—I really think it is extremely difficult to say how far any industry has benefited from exhibitions alone, because we have the interfering action of the tariff in each particular country. If you hold an exhibition, for instance, in France, you will have different conditions to those which you will meet at an exhibition held in the United States. It is quite impossible to say how much of the trade is due to the exhibition in a case like that. There must be an interference caused by the tariffs, but one really cannot say how much that is.

1882. You do not know the particular industries that have been specially affected by exhibitions, do you? It has not come in your way so much as their general aspect?—The individual cases have not so much come before me; but I do know of manufacturers who have been very pleased indeed with the result.

1883. Taking the *per contra*, do you know of any industry that has been adversedly affected?—I have heard—of course, on juries one does hear these things—that that is chiefly where designs have been copied, and where ideas have been taken with regard to machines and a few articles of commerce. I have heard complaints about that. But one has to put against that, of course, what our manufacturers learn from their competitors, which I believe is very much greater than what they lose.

1884-5. On the whole, would you consider the influence has been very beneficial?—I think, on the whole, I may say decidedly that it has been beneficial.

1886. Do you consider that these results warrant the official participation of this country in international exhibitions in future? That is, participation by the Government giving grants?—I do not know whether the question refers to exhibitions held in this country or to exhibitions abroad; I am not quite clear on that.

1887. I am referring mainly to exhibitions abroad?—In connection with exhibitions held in a foreign country by foreign nations, I think myself that the expenditure is warranted; but I do not think the justification is so great in the case of exhibitions held in this country.

1888. There has been a very large expenditure in Paris and in America by the British Government?—Yes; there was a very large expenditure there.

1889. Do you think the direct commercial results warranted that expenditure?—There are two points with regard to the results which should be kept separate: one is our prestige as a nation, and the other is the commercial benefits which accrue to our manufacturers. For instance, if you take the finest exhibit that we had at St. Louis, for which Sir Isidore

Spielmann was mainly responsible, the very fine art exhibit which we had there, we could not say that pecuniary benefit accrued to Great Britain from that; at least, personally I do not think so. On the other hand, it was a very great advantage for Great Britain to be represented in that way, and it gave her a position among the nations which perhaps no amount of merchandise could have given.

1890. Do you think that we should have had as good results by private enterprise if the Government had not taken part?—I think it would have been quite impossible. I do not see how any individual, or group of individuals, could represent the whole nation. It is the Government itself that represents the nation.

1891. In art, do you mean?—I mean in anything.

1892. But it is the private individual who supplies the exhibits?—It is a number of individuals. I do not think you could find any group of individuals who would come together and supply exhibits representing the whole country.

1893. Not unless you mean, I suppose, there was Government supervision and help?—Not unless the Government take the lead. There would be private jealousies, and, of course, there would be financial difficulties as well. In any case there would be the private jealousies between individual manufacturers, so that even a single trade could not be well represented unless there were some neutral head.

1894. Assuming for the moment that public money is granted to organise official exhibits, do you consider there are any special conditions that should be insisted on about the accommodation and other facilities offered by the exhibition authorities?—That is a question that I do not quite understand. The point that is not quite clear to me is whether we are in a position to get any conditions altered that might be stipulated by the originators of the exhibition.

1895. Take the case of an exhibition at Paris; the stipulation might be made, might it not, by the Government that we must have so much space before we will take part in it—that it must be a proper amount of space, and in a good situation?—It that case it would be a matter of negotiation between the promoters of the exhibition and our Government. Of course, we must stipulate that there shall be sufficient space for our country to be adequately represented. I think that would be necessary.

1896. Would you also make it a condition that a large number of exhibits should be offered by British firms?—I do not think we can do that. Take, for instance, the St. Louis Exhibition. We were nearly two years making up our minds whether we should join or not. I do not think you can stipulate that our manufacturers shall send so many exhibits in before you can give your assent; I do not think it can be done practically.

1897. Do you think you cannot get them to promise even to send?—I am afraid not. I am afraid the time that would elapse in getting promises would be so great that we should be coming in at the end of the negotiations. I do not think that would be feasible. I think the best way would be to devote a certain sum of money if the nation thought fit to be represented, and then to get as many as you can to enter.

1898. You have not had much to do with the organisation of exhibits, have you? You have had more to do with the jury work, I think?—Yes; my work has been chiefly in connection with the juries, but as a member of the public I have observed what is to be seen. Then I got quite a number of exhibits for St. Louis.

1899. Did you help to get people to exhibit, do you mean?—Yes. There was some difficulty at first. It was chiefly in connection with the Society of Chemical Industry. We all did our best there, and Sir Boverton Redwood especially was very active. Indeed, we all did what we could to get our friends to come. They would not come at first, because they said it would not pay them the cost of going to America, but all of us used our personal influence, and I think at last we got what was the second-best British exhibit there.

1900. Have you happened in your experience to come across the different methods in which other countries or people exhibit—Germany, for instance, or France?—Undoubtedly I know something about Germany. I was at a German University, and I know a great deal of their methods. There is a great deal of personal pressure put upon exhibitors there.

1901. By the Government?—Undoubtedly. I think any firm that supplies the Government in any way is bound to exhibit. It is considered a matter of honour with them, and they do it invariably. If the word goes out that there is to be an exhibition, and that they should exhibit, they do it. There is a great deal more moral persuasion in that way than there is here.

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1902. But you have not been concerned, I take it, in the exact process in which it has been done in Germany within the last few years?—Not personally, because I am a British subject, but I have had conversation with men of these other nations—Germany and France.

1903. Have you had to do with the French system?—Yes. The German organisation is facilitated very much by the guilds that they have. All their trades and industries are organised in guilds. They were started first in connection with the employers' liability to workmen. It is different there to what it is here; there the State pays part, the guild pays part, and the workmen themselves have to contribute; and so they classify the trades and make them form guilds, each separate trade forming a separate guild. These guilds are at the disposal of the Government, and when anything like an exhibition takes place the Government gets these guilds to help them to nominate men who will assist. They have no less than 8,000 of these guilds. I have taken that number from their official return.

1904. They would include most of the manufacturers, I take it?—It is very difficult to find one who is not in the guild. There they have a network which is spread over the whole industrial country, and they can set that to work whenever they like.

1905. That would be a very convenient machinery for the purpose?—Yes. It is all to hand, and is altogether apart from their regular organisations, their permanent organisation for exhibitions. In France there is a committee called the Société Française des Expositions à l'Etranger; I do not know whether you have had particulars of that?

1906. Yes, we have. I want to know your opinion about such systems as the German system and the French system compared with ours, and whether you think we can improve our methods?—I am rather in doubt whether we have got any methods. I think it is done in a haphazard way here. I do not think we have any method, at any rate, I have failed to discover any, so far.

1907. What method would you suggest?—That is a very big question. I read a paper before the Society of Arts some two years ago, and I made a suggestion there that there should be a joint committee.

1908. Will you let us have the benefit of that suggestion; what joint committee—formed of whom?—First of all the Technical Societies, the Industrial Societies, and the Commercial Societies should be represented, and if they are represented, then, of course, you have all their members with you. As the matter is now a Royal Commission is named, and that Royal Commission, I believe, names committees. I think that is beginning at the wrong end, because you cannot tell that you have hit upon just the very men who will secure support. You will of course hit upon influential men, and men who have perhaps a high political position, but you will not get the same support from the masses and from the people who will actually have to supply the exhibits as if you were to go to them in the first place, and say, "Now, send us men that will help us," and they sent them. Then you would have the whole of it to your hand. That worked out very well with the National Physical Laboratory. They had a joint committee there, of which I was a member, and the board of governors was composed of representatives of the different societies that took an interest in the work of the National Physical Laboratory. It did very good work indeed. We got suggestions and pecuniary help from all over the country; before the Government granted sufficient funds our societies subscribed, and we found money to assist an undertaking which the Government ought to have started in the first place on a proper foundation. But we did it because each representative went to his society and said, "We are so much short of funds; this laboratory is doing good work, and we ought to subscribe to it"—and they did.

1909. Do you think that these societies you mention would subscribe to such an organisation?—I do not know whether they would be able to subscribe or

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whether it would be within their legal rights to do so; but in any case you would get their personal help, and I think you would get the whole nation with you in that way. It is the old point of representation and taxation, we may say; you may go to them, but they will not help you unless they are represented.

1910. Would you propose a permanent committee?—I think that is the only way to do it satisfactorily.

1911. How would you get hold of the manufacturers who are outside, because a great many of them are, I take it, outside these societies?—I think most of them belong to some society or other. I do not know of any that would not belong to some body. I think all of them belong to some commercial or technical body.

1912. Those bodies would include the chambers of commerce, I suppose?—Certainly. I may say, perhaps, with regard to the benefit that is to be derived from exhibitions, that I think commercial men do not derive so much benefit as technical men. It is the people who make the goods that derive most benefit from exhibitions. The merchant will buy goods from wherever he can get them—foreign goods in preference, if they are cheaper. It is the manufacturers who live in this country who would benefit most by exhibitions, and I think they ought to be very strongly represented. The merchant will go here, there, and everywhere; he will go and see the goods, and he will buy the goods of the nation where he sees them; but it is the technical men, the actual manufacturers of the goods, who, I think, should be most strongly represented. That is the opinion I have formed by observing the course of things at exhibitions.

1913. And it is your opinion that we want to get. What official limits would you introduce into such bodies?—I think each department of State should be represented, and, of course, they should have control over the executive, as it were. I do not see how it can be otherwise if the State is to find the money.

1914. If the State finds the money, that would naturally be so?—Yes, but the others would have a consultative position, and would be consulted; so that the resolution of such a body would be practically a resolution not only of the Government for the time being of the country, but also of the bulk of those who would have to assist in getting exhibits.

1915. How would you proceed? Supposing an exhibition was going to be held at some country abroad, would this committee meet and consider whether it is worth being represented at it?—I think that would be the way. This permanent committee would meet, it would be consulted by the Government, of course, and then I think they would be able to say, with their knowledge of every different organisation, whether such an exhibition could be useful to us or not. I think I have made the suggestion in my Notes, or, if not, I make it now, that I do not think a general international exhibition now is of so much use as specialised exhibitions.

1916. I was just going to ask you that question. What have you to say about the departments of the State which should be represented?—With regard to the different heads of the departments of the State being represented, I think I could give you one or two instances, if I may, to show the necessity of it. When we were judging at the St. Louis Exhibition, we noticed many things. We were familiar with the trades in which we were judging, and we could see some openings for trade and for British commerce; but it was not one of our duties to report upon that so much as on the goods that we saw there. After we had finished our duty in judging, we received a letter from the Board of Trade through the Commission, would we report upon the commercial aspects that we had noticed at the Exhibition? It came too late. We had finished our duties, we had left the Exhibition, and we could not then report as we might have done if we had been on the spot and could have made inquiries. At the next exhibition, at Milan, the Board of Trade said nothing about it—in fact, nobody said anything at all. It was one of the jurymen who called attention to the fact that perhaps British commerce might gain some benefit from the remarks of the jurymen; and so, finally, a letter was sent out to the jurymen asking them to report on the commercial aspects of the exhibition.

1917. What exhibition was that that you are speaking of?—The Milan Exhibition of last year. One would have thought, after what had happened in the first instance at St. Louis, that that would have been made a note of; but, as a matter of fact, there is no continuous management at all, and in such things as that it seems to me to be of the utmost importance that openings for commerce should be noted by the jury, who are all experts in the different trades. But, as I say, nothing was done, and nothing would have been done if it had not been for the casual action of a juryman.

1918. Your work was simply examining the exhibits with a view of getting prizes for the best goods, I take it?—That was so. There was nobody, practically, who could give any information about commerce except the jury. There was another case that I met with at Milan. In my particular department there was a very interesting exhibit showing the teaching of agriculture to the Italian soldiers—all the Italian soldiers practically, I may say, being taught agriculture.

1919. They help to get in the harvest, do they not?—They do anything in connection with the tilling of the land. They are taught agriculture at a number of stations. I found that this did not seem to be known here, and I made personal inquiries, and wrote to the War Office about it. They asked me for further particulars, and I sent them a full account of the whole thing, for which they expressed their gratitude, and said it would be very useful. That was a casual thing, but if there had been a representative of the War Office on the Committee, or the Royal Commission, or whatever you may call it, that could not have happened merely casually, because he would have been alive to anything of the kind. Then, again, with regard to the new things that appear, which may be of the utmost importance nationally. For instance, now there is a new process for fixing the nitrogen of the atmosphere, upon which the whole of our national defence depends. We are now getting the essential material for our propelling agencies, our gunpowders, all from Chili; but the moment they are able to produce nitric acid from the atmosphere more cheaply, it will all come from Germany or Italy or Norway; so that the whole of our munitions of war will depend upon the supply from those countries.

1920. (*Sir James Kitson.*) Why should it not come from Scotland, where there is abundant water power?—There, I think, I must go into another question, and that is our patent law. These patents will be controlled by foreigners and are at the present time controlled by foreigners, and we cannot even use our own water power or our own coal to supply the materials for our own guns.

1921. (*Chairman.*) I am afraid I must refer you to the President of the Board of Trade on that point; this question of the patent law is not within our reference?—I was a member of the deputation to the Board of Trade upon the patent law. I am sorry I am going away from the question. My point is this, that from time to time in an exhibition you get the first idea of what may be very important inventions indeed, either for our commerce or for our national defence, and in other ways it may be important. I think, therefore, that each department of the State should be represented on such a committee.

1922. Would it not be on the organising committee, and would it not be represented in some way at the exhibition? Would not each department have somebody looking out for what is interesting to that department?—I think it would be very important that there should be somebody there, and that some of the jury should be deputed by that department to represent their interests there and look out and report to their special department.

1923. Would you suggest that the duties of jurors, besides advising on prizes and on awards, should also comprehend a general report on matters which would be interesting to the various departments at home?—Precisely, with the exception that each juror should not report generally, but that special jurors should report on their special branches as relating to A, B, C, or D, as the case may be.

1924. Do you think there would be a difficulty in getting jurors to do that?—I do not think there would be a difficulty in getting them to do so, but whether you can get them to spend a very long time for nothing is another question.

1925. That is what I meant; would they like to spend the necessary time at the exhibition?—It is very easy for a man who, for his own information, is col-

lecting all the data possible to draw up a short report; but if a man is to be deputed specially to go over the whole place with a definite object in view, that would take a great deal of time.

1926. To go to another matter connected with these exhibitions; do you think that the awards should be continued? Is it an essential part of the system to have prizes, medals, *diplomes d'honneur*, etc.?—I am afraid I should be considered a little disloyal as a juryman if I were to give you any definite opinion upon that; but I can hardly help saying that awards do not now occupy such a high position as they did occupy. On the other hand, there are many commercial firms who would not exhibit at all if it were not for the advertisement that they get in that way.

1927. They would not exhibit for the mere chance of selling their goods, would they?—No. There are many firms that I know personally who only sent their goods to St. Louis so that they might publish an additional award at the head of their notepaper and invoices, and in their advertisements.

1928. I take it that you would rather like to do away with the awards, but you do not see your way to do so?—I think you have summed it up very well indeed, better than I could do it myself. I do think the awards have really deteriorated in their value. There is another thing with regard to these awards, and that is that when a first-class firm has got the highest award there is nothing more for it to get except a ditto, it can only go on repeating; and the award then is not of such a value to them as it would be to a younger firm. But it is a great advantage to a young firm, a firm that is establishing itself, to get an award and to show that it is already in the field, perhaps rivalling the older firms against which it competes.

1929. Do we not want to bring up all these younger firms? Is it not desirable that we should have new firms and new brains and new blood coming into our industries?—I think that is really the life of an industry. I think if we were simply to depend upon the old firms and the old methods we should be absolutely stationary.

1930. I do not think I asked you whether you attach much value to there being a Royal Commission for these big exhibitions, and whether the fact of there being a Royal Commission is valuable?—It has been our usual way; that is all I can say for it.

1931. What is your experience? Do you think that they justify their existence?—I think we have so many good men in the country that you can put almost anyone forward as administrators, and so hitherto it has worked fairly well. But every time there is an exhibition to take new men who have had no practical experience of exhibitions and put them all together, and to tell them to do their best, is hardly fair to them, nor is it the best way of doing the work. I think there should be some continuity in those things.

1932. But your chief recommendation is for this representative body?—That I think would be most useful. With regard to jurors, there should be some continuity. One point I should like very strongly to emphasise with regard to the jury is this, that our British jurors have no instruction whatever in their duties. They go there and they are quite helpless because they have not had the instruction that most of their foreign competitors have. The consequence is that British firms may have awards which do not compare favourably with those obtained by the foreigners.

1933. Do you mean that the foreign jurors are briefed, as it were, and told how to proceed so as to get most awards for their countrymen?—The rules of most of the exhibitions do not make the awards dependent upon the excellence of the goods which are exhibited, and there are many other things that come into play. They take into account the time that a firm has been established, the awards given at other exhibitions, and many other things. The British juror in this country at every show and every exhibition goes there and he looks at a thing, and if it is good he awards a prize, and if it is not he does not. That is not the case with an international exhibition, and none of our jurors seem to know that. I think one of the most important things in connection with international exhibitions should be some instruction given to our jurors as to the way in which they should carry out their duties. Generally, on the question of bribery, I should say you should have jurymen who are quite above anything of that kind, and who are in such a position that they are not liable to be bribed.

1934. (*Sir James Kitson.*) You were suggesting the value of exhibitions as a means of different nations, our own for instance, acquiring information by the exhibits that they see. Do you not think that is rather an antiquated way now for highly organised industries to obtain information? Take those who are connected with the Society of Chemical Industry, or with the Institution of Mechanical Engineers, or with the Iron and Steel Institute, and all the rest, and take the papers, highly technical papers as they are, which are read there, and the scientific information which is there given and communicated throughout all Europe; take also the foreign correspondents which are supported, as you know, by each of those institutions to collect scientific information. Having regard to those I suggest that, as a means of acquiring information to the advantage of our manufacturers, exhibitions are not now of much value?—There are two ways of looking at that. I think they are for this reason: In the first place, I read many papers myself before technical societies, but when there is any important industry connected with it I, and I think most of my colleagues, take very good care not to put in these technical papers the little details and particulars which are essential in carrying out a process. For instance, with a machine of course you have to give drawings, but even there you need not disclose the most essential parts in those drawings.

1935. Do I understand you to say that you could make a drawing of a machine without disclosing the essential point of the operation of that machine?—Yes.

1936. Do you really say so?—Yes, I do. I have met that in patent specifications; it is a great trouble, in fact. You will get a patent specification which will give you a drawing showing the machine as regards the point patented, but all the rest of the machine need not be shown, and it is not shown if they can help showing it. Therefore, although you have got the point patented, and that is quite clear, the rest of the machine you have to make up yourself from what has been done previously. If you are very clever and know everything that has been done, you can do it. That is the point that is in my mind with regard to that. I very often have to give evidence in the Courts of Law on patent cases, and we often find that there is a great deal that is not disclosed—that one point which is essential in the working or in the making of the machine is disclosed, and the rest is not. I must say I do that myself in every patent I take out wherever I can.

1937. I will give you a point: The French, as you know, designed a four-cylinder compound locomotive which is very well known; it is very successful, and drawings of that were published in the scientific journals; how would it be possible to conceal essential points in such a machine as that?—The novelty there would only be a part of the machine, and the other parts of the machine would be so thoroughly well known that it would be very difficult indeed not to disclose them. But still, even there details might be omitted which might be essential in the working.

1938. I am sorry I do not agree with you?—You think not. If a man made a drawing that he wanted to work by he would put everything in; but if he, on the other hand, did not wish you to work by it, he would omit everything that he possibly could while giving you a general impression.

1939. Just now I interjected a question about the manufacture of nitric acid, on which subject you instanced Italy, Germany, and other countries where cheap water-power is obtained?—That was in my mind, although I did not say so.

1940. In Scotland cheap water-power is obtainable; I have had the honour of sitting on one or two Committees where the question of water-power in the North of Scotland was gone into, and it was shown that there is abundant water-power which I think could manufacture all the nitric acid that is wanted?—Our rainfall is more than sufficient to supply all our farmers with nitrogen from the atmosphere. That is quite true, and I agree with you entirely. But the difficulty there is the patent law. The other point with regard to your remarks is this, I think: However large a firm may be, and however skilled their technical experts may be, and also however good linguists they may be—which is another important matter—I do not think that they could get so much information by wandering

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through the whole of Europe as they can if people bring their best goods to show them all at one spot. I mean to say that in a month spent at an exhibition you can learn more than you can learn in five or six months wandering about searching for information. Probably you would not be able to get into the factories where those things are made if you were in the same trade. So I think the educational value from an industrial point of view of an exhibition of that kind cannot be got in any other way. People will show in an exhibition things that you, in the same line of trade, could not see in their factories.

1941. If you are a technical expert, of course you want an encyclopœdic knowledge of everything, but if you are a manufacturer you only want information on one specific point, which I suggest you could obtain through a scientific society more accurately and more easily than you would by searching in an exhibition?—You would get general information in that way, certainly; there is no doubt whatever about that.

1942. (*Sir Swire Smith.*) I think you said that the day of great international exhibitions is over?—I did not put it that way; at least I believe I put it that I did not think it was so advantageous now to hold a great international exhibition of all trades and industries as to hold special exhibitions of certain industries.

1943. Would you have the Government support special exhibitions?—I think, in regard to those, that it would be very useful indeed if you had a general committee to advise you. If a small country that was unable to do it were to attempt a great international exhibition, they would fail utterly, and the thing would not be worth sending our goods to. I will not say that the exhibition at Milan was a failure, because it did not attempt to be a general international exhibition—it was only a partial one. But the case might arise where a small country of limited means might start an international exhibition, and one would know beforehand that it would be a failure.

1944. What would you say with regard to local exhibitions or provincial exhibitions in this country, such exhibitions, I mean, as the Glasgow one?—I think they are very useful indeed.

1945. Would you favour Government assistance for those?—I would favour Government assistance, if they were not for the benefit of any local trade or industry, and if they were general. I do not think it would be fair that a Government grant should be given to foster a particular trade in any district. It would be right enough under the Education Act, but I do not think it would be right under such an arrangement as I would suggest for international exhibitions, at any rate.

1946. Do you see any means of drawing the line?—I have not considered where you should draw the line. I think it would be very difficult indeed.

1947. So it seems?—But I think a line could be drawn.

1948. You spoke of diplomas being of much less importance than they used to be, still you are of opinion that it is as important as ever to get the best exhibits?—Certainly.

1949. How would you get the best without the compensation that you gave originally to the exhibitors who got the diplomas?—What compensation?

1950. The awards, the advantages which they would derive from the exhibition?—I do not think you would get some firms to come at all if they did not get some award.

1951. When you were putting that point it occurred to me that an eminent firm, having got its award, might not take a particular interest in an exhibition afterwards, because it had nothing better to get?—There would be only the dread of competitors getting an award equal to its own, and advertising that. Therefore a great many of them come into every exhibition. Well-established firms cannot afford to let the others come alone.

1952. Therefore, after all, the question of awards is still important?—It is very important; and it is one of the standing directions to French jurors that they shall never accept any award for a French exhibit less than the award that has been given at a previous international exhibition. That is one of their definite instructions. We had many fights upon that at St. Louis. Upon the first occasion the whole of the French jurors went out of the room, and went to their Commissioner-General; but they came back again in half an hour, because, of course, that could not be upheld, as it was not according to the rules.

1953. Have you any suggestion to make as to how you can get at the best of everything for exhibitions? In every industry of course you want the best, and how would you get that?—I think the only way would be to get in touch with the whole body of people who produce these exhibits. Hitherto we have not been in touch with them. There is a case in point in the chemical exhibit at St. Louis. We were, I think, most distinctly in touch with the chemical industry. There is a gentleman here who can tell you more about it than I, Sir Isidore Spielmann. We really circularised, and one of the members of the Committee visited personally, nearly every manufacturer of chemical goods.

1954. And of course you would think that would be necessary in every other industry?—It is certainly. At Milan the maritime exhibits were so good because the English Commissioner was connected with shipping, and he got a splendid exhibit together. That shows what can be done if you get the right man in every branch.

1955. (*Sir Isidore Spielmann.*) With reference to your collective exhibit at St. Louis, how did it compare with the collective exhibit of Germany?—The collective exhibit of Germany was very curiously got up. There was a reason for that, I was told by one of the German representatives. They had a collective exhibit which yet contained the means of distinguishing the origin of each exhibit, but it was dealt with as a collective exhibit. The reason of that, they said, was the duty. They said that where the Americans found out that German firms were producing certain articles well in large quantities, they raised the duty on them at once, for the sake of American industry. That was the reason given to me by one of the German Commissioners why they had a collective exhibit in certain manufactured articles. With regard to apparatus, the German exhibit was far superior to ours, but with regard to many manufactured goods ours was far superior to Germany's.

1956. If you were called upon to form a collective exhibit for another exhibition, could you do it?—Yes, certainly.

1957. If you could do it in the chemical industries, is there any reason why collective exhibits should not be formed by other industries?—I think it could be done in every industry if you get the right men to put their shoulder to the wheel and do it.

1958. With reference to the juries, I think you were vice-chairman of your jury, were you not?—I have been vice-chairman of several juries.

1959. At the St. Louis Exhibition?—Yes; they put me on a good number of them. I think I was on six juries, and the superior jury as well.

1960. What is your opinion as to the payment of jurors? We have had a witness here who has told us that he thinks it would work better if jurors were not paid their expenses; what is your opinion?—My opinion is that then you would get men who have money and no brains; you would get men who would simply go for the pleasure of the trip in an official position, and who would probably carry out their duties in a perfunctory manner.

1961. In fact, you would not get the best men?—I do be very good men—I would not say anything against be very good men—I would not say anything against them as men—but I do not think they would be such good workers.

1962. Nor such good jurors?—A juryman, if he is worth anything at all, is generally very busy. To keep in touch with modern industry you have to be very busy, and you must either spend your time in learning technical or scientific principles and details or you must spend your time in the particular business you are engaged in. If you go abroad as a juror, you have to give that up; that is one loss. Then you have to put your hand into your pocket to find money for the expenses. I do not think it would be reasonable to expect all that, and I do not think you would find men willing to go unless they were men of leisure, and had either retired from business or had not anything else to do—that is, were amateurs.

1963. Consequently, in your opinion, they must be paid?—I think it is only fair that they should be paid.

1964. Are you satisfied with the way in which the jury work was done at St. Louis on the whole? You

have given us a few instances of dissatisfaction, but, on the whole, do you think it worked well?—Do you refer to the British jury?

1965. No, to the international jury which was engaged in judging the collective exhibits?—I am afraid you are inviting me to judge my colleagues. I could give instances where I do not think some of our foreign colleagues behaved quite fairly, but I do not think it would be judicious to do so.

1966. Can you suggest any improvement in the work of the jury?—Is that without regard to the British members, but including them in the whole?

1967. Yes?—I think myself that all the jurors, if it were possible, should be in the same position. The French jurors have a very great advantage over the British jurors. Not only may they themselves expect some little distinction from their Government when they go home, but they can offer it to foreigners. That costs nothing to the Government at all, but it is highly thought of by the people who receive it. I myself had a distinction offered to me by the French authorities, and I had to refuse it because we can give nothing in return at all. There is no order that we can give, there is no distinction of any kind that we can give, to the foreigner who assists this country. The French especially are very active in that way. They do give distinctions to foreigners who assist them; and, to put it from a sordid point of view, it is the very cheapest way of doing the work. So that we are not quite in the same position as some of the foreign jurymen.

1968. With reference to the Milan Exhibition, you said it was a partial failure. What did you think of the British section of it?—I do not think I said Milan was a partial failure.

1969. Then did you mean that it was an entire failure?—No; I meant that it was a partial exhibition.

1970. What about the British section of it?—I think what you have said is to some extent correct, that some of the sections were not good, that they were poor.

1971. How would you describe the British section as a whole, apart from the ship models?—It was scraps—little bits of this and little bits of that. There was no general British exhibit at all. It was a little bit here and a little bit there.

1972. That was organised by the London Chamber of Commerce, was it not?—Yes.

1973. It is stated that the London Chamber of Commerce has been invited to organise the British section for another Brussels Exhibition in 1910. What is your opinion as to the wisdom of allowing the British section being organised by the same body?—I think I have very plainly expressed my opinion that an exhibition, to be successful, should be organised by a committee that represents generally the industries, trades, and arts of the country. I do not think a Chamber of Commerce can be taken to represent more than the commerce of the country, and, as I mentioned before, without knowing that you were going to put the question to me, I think the merchants are not the ones to get the best out of an exhibition.

1974. I think you said that manufacturers benefit the most?—Yes, they would benefit most.

1975. We have been told by other witnesses that manufacturers are very often not allowed by their agents to exhibit; what is your experience on that point?—I know that it is so.

1976. That they cannot exhibit without the consent of their agents?—I know that if a manufacturer gives his agency in a foreign country to a firm, that firm very often does not like its principal to come and exhibit in that country. I think it is clear to a commercial man that it may possibly interfere with his own sales, or it may possibly lead to the principal firm coming to work the country themselves. It has happened frequently.

1977. Has the consent of the agent been withheld?—That, of course, depends on the individual conditions of each case. It is difficult to say.

1978. (*Mr. Malcolm Ramsay.*) Your view is, I understand, that exhibitions have a generally beneficial effect on the export trade of a country?—I think so, generally.

1979. Can you give us any details? Do you know of firms that have got large orders in consequence of exhibitions?—Yes, I have had particulars given to me. They have been satisfied.

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1980. The majority of the exhibitors have been satisfied?—It would be impossible to say the majority have, but I do know of many individual cases where not only have they received orders, but where the awards which they have obtained have helped them in their home trade too.

1981. Would you tell us whether, in your opinion, you think that exhibitions are really a means of advertising trade all round, or whether there are only some trades which get a benefit from exhibitions?—I have considered that matter a great deal, and I have thought that if it pays any firm to advertise, it pays them to exhibit. You find a great number of firms who advertise constantly, and generally it is those firms who exhibit at exhibitions. It is a means of publicity which goes home to the buyer, I think, more than a casual advertisement in a newspaper. I think they make the same use of exhibitions as they do of the advertising columns of the newspapers, and I think that is proved by the fact that when the diplomas came from St. Louis a number of firms who received them actually had printed in a half-page above their advertisements the whole diploma. That shows that those people who have exhibited attach importance to the advertisement which is derived from the publication of the award.

1982. On the other hand, would you say there were a great many trades to whom the exhibition would have no attraction at all?—Personally I do not know of many, but I should think it quite possible there would be such. I know some firms say they never exhibit.

1983. (*Sir Swire Smith.*) The cotton-spinner will not get anything out of it, will he?—Perhaps not.

1984. (*Chairman.*) You know more of specialities than you do of the staples?—Yes.

1985. The great staples of industry do not exhibit, do they?—Not so much. A man would not exhibit pig-iron, for instance, and he would not exhibit cotton cloth, and those sort of things; but at the same time I think it would be well for him to appear before the great buyers from all the countries that are at the exhibition. I think he would profit by it.

1986. (*Mr. Malcolm Ramsay.*) The only point I was trying to get at was whether you think many trades now left out in the cold might get some benefit from an expenditure of public money on exhibitions?—Yes, in this way, I think—that every trade is so connected with other trades that I think it would be impossible to benefit one without benefiting the whole community.

1987. Is it your experience that the same exhibitors go on from one exhibition to another?—You can look up the catalogues of a number of exhibitions, and you will always find certain names; but names, of course, drop out. People sometimes go to four or five exhibitions, and then their names drop out for some reason or another, and they do not reappear. On the other hand, new ones are continually coming in. They come in in shoals in each exhibition. I do not know whether that is an answer to your question.

1988. Can you place those new-comers under any general class? Are they people trying to build up a particular business?—It is "push."

1989. Or do you say they are people who are trying to push their trade in a particular country? I suppose they would fall into one of those two categories?—I think it is chiefly push, chiefly trade enterprise. The Germans are very strong at that. They will go and exhibit in a country where you would have thought they would hardly do any business at all, but they exhibit, and I suppose the trade comes in time.

1990. Are you satisfied that the total volume of our export trade is increased by exhibitions? I mean that in the case of those firms who exhibit and who may get a large number of orders, do you think they take the business of other English firms, or do they take business which formerly went to foreign countries?—I think if there is an English exhibit alongside a foreign exhibit in the same exhibition, and supposing that they are as near as can be apparently equal, the reputation of British goods is so well known all over the world that the English firm would get the prefer-

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ence—I think that would be so, even if they were exhibiting alongside foreigners.

1991. Do you think English firms have got business which formerly went to other firms in this country?—Is it the question, do firms which exhibit take trade away from those which do not?

1992. That is what I meant?—I have no means of answering that.

1993. Can you tell us some of the grounds on which people who were asked to exhibit at St. Louis refused?—I could tell you some of them. The bulk of them I must say—by far the larger number of them—simply said, "It is no good; we have got such a tariff against us; we could not send the goods if we got the orders." That was the one thing. Even firms who would willingly have exhibited here in this country, or anywhere else where they could send the goods, found the tariff so much against them. It was asked, "Do you know how much we have got to pay?"—I might know or I might not, but in any case the tariff was prohibitory.

1994. Did they ever meet you with general objections to the value of exhibitions?—I have heard of cases, not many, where they have said, "We are not going to give our ideas away to other people." It is generally from the old-established firms I have found that; I do not know why.

1995. Have you ever come across a general feeling on the part of manufacturers that exhibitions have little practical use?—Not as a general feeling.

1996. But you have met with it?—Yes, I have. There are many who say they are no use, and many who say that the good that they bring to them is not in proportion to their expenditure. That is the way that I have heard it put. It costs so much, and they do not see the prospect of an immediate return for the money which they will have to spend.

1997. May I ask whether you think that the manufacturers who do exhibit get more advantage from exhibitions as an advertisement, than they would by their own private advertisements which they pay for exclusively themselves?—I think that many people who would not read the advertisements—foreigners, for instance, who are not able to read the advertisements in the English papers—would see the goods, and would say that is just the thing they happen to want, and then would order it. I think exhibitions reach a class of people that advertisements will not reach, and never can reach.

1998. Could you give us your view as to the extent to which the public should subsidise exhibitions? How far should the State go in paying the expenses of exhibitors, or in giving grants for the representation of England at exhibitions?—I think the most remunerative use of the money is in the organising of collective exhibits in different trades. You would get more to show for the money spent in that way than in any other way. But then, of course, you have to consider the question whether you should pay the carriage of these exhibits.

1999. Do you think the public should pay the carriage?—I think it depends upon what the cost may be. I think you could not have got the manufacturers to have gone to St. Louis, for instance, if they had had to pay the whole of their expenses. It depends on the particular exhibition. You might get them to do that in respect to Belgium. Our railways and other people have made it cheaper for foreign traffic than for our home traffic, so I do not see that there would be any difficulty there.

2000. Would you relieve the exhibitor from payment for the space he occupies?—If you want to get a really good representation of British industry, the more facilities you grant the exhibitors, naturally the better it is.

2001. I quite understand that from the point of view of the exhibitor?—If we want to place Great Britain at the head of an exhibition, then if we give free space and pay the carriage, we should get an enormous lot of exhibits, of course, but it is relative in each case.

2002. As it is a good means of advertisement to the individual who exhibits, is it unreasonable to ask him to pay a fair proportion of the expense?—No, I do not think so at all. I think he ought to bear a portion of the expense.

2003. These exhibitions are becoming very frequent, and if the State is to participate in all of these it seems that this would involve a very considerable financial burden?—Yes, it would.

2004. If the manufacturers are not willing to pay, does that not rather imply that they do not think they are going to get direct advantage?—That is quite logical, and it is quite correct that it is so. I think that if you had a committee which represented the whole trade of the country (and the ratepayers, too, necessarily) you would find that they would discriminate between exhibitions which were worth exhibiting at and others which were not. They would have a full knowledge of the value of money, of course, because they are the people who pay the rates and who pay the taxes. But there is another point about exhibitions which I do not think has been touched upon since I have been in the room. It is that we have a position as a nation to keep up. Much of the money would have to go towards that.

2005. That is the first aspect of the question, but the point we have particularly to consider is the commercial side of it. Of course, there are international grounds of policy which cannot altogether be separated, but which form rather a different side of the question?—It would mean an extremely heavy expenditure if you were to represent the country as it should be represented. For instance, in the United States each department spends an enormous sum of money in exhibiting at these exhibitions. In St. Louis they had most magnificent exhibits, and the Smithsonian Institution and others spent a lot of money. Public money spent in that way brings no profit to anybody.

2006. (*Mr. Harris.*) You leave a very uncomfortable impression on my mind by your description of the methods of juries. Do you not think it might be wise to bring home to British manufacturers that after all the methods of juries leave the award practically valueless, as it does not necessarily reach the best goods?—I think I was careful to say that it was only in individual cases that the juries act in that way. I think the question was put to me whether I considered the awards satisfactory at St. Louis, and I think I said, "Yes, on the whole." When I mentioned cases like those you have in your mind, that was simply to show that British jurors should go prepared and forewarned. At St. Louis a general meeting of the jury was held by Sir Charles Watson, who foresaw this, and knew something about it, and the jurors there were, to some extent, initiated into the mysteries which they would meet with; but at Milan nothing was done at all.

2007. Mysteries or no mysteries, initiation or not, are we to understand that you do not, as a rule, get an award simply for the best goods?—I should not like to put it that way at all.

2008. Not so strongly as that?—No. Perhaps I had better read you one of the regulations, as I think that will show you the point better than I have been able to put it to you. The maximum number of points was taken at St. Louis to be 100, ten points being given for the "magnitude of the business represented, as measured by the gross sales during the calendar year preceding the opening of the Exposition." A British juror does not know that, nor does the exhibitor know it when he sends in his goods; and yet he ought to be told. Then "quality or cheapness, with reference to the possession by the exhibit, of highest possible quality, or the fact that the article is sold at so low a price with reference to its quality as to make it a valuable acquisition to the purchaser." Then the "length of time the exhibitor has been in business." Marks were also given for the "number and character of awards received from former Expositions." The British exhibitors do not say what awards they have.

2009. This is my point. If that were made known to the British trader, would he not say, "That sort of thing is not worth going in for at all"?—I would not put it that way. I think it is the bad organisation of our own exhibition department which is the cause of that. The other nations know this, and are prepared to meet it.

2010. The point I want to make is this: Are not those suggestions which you have read rather an unfair method of awarding a premium to goods; and, therefore, if the British manufacturer grasps the idea that those elements enter into an award, will he not say, "Really it is not worth having"?—But I do not think they are unfair myself, and I do not say that they are unfair.

2011. But do you not think the object of an exhibi-

tion is to show the best goods simply?—No. I think, for instance, that the magnitude of the firm should be taken into consideration.

2012. Suppose you have better goods shown by a smaller and young firm; is that young firm entitled to the benefit of its best goods on its merits?—But you cannot always exhibit the goods. A firm I know very well, for instance, the Nobel dynamite firm, send a few dummies and put them in a case; yet they are the biggest firm in their line in the world. It would not be fair if you were to ask them to send a few tons of dynamite, smokeless powder and so on. There are cases, therefore, where the goods cannot be exhibited, and it is for those cases that these conditions exist.

2013. Is not the answer that those firms should stand out of exhibitions altogether?—That might be so.

2014. Because they have an article which is not capable of being exhibited?—If we took the word "exhibition" in its narrow sense, then it would certainly be so. If "exhibition" means putting the goods there, and, in our British way, looking at them and judging them so far as you can, then indeed it would be so.

2015. Then you do not look upon an exhibition as primarily adopted for pushing trade; but you look rather to its educational effect; is that so?—No. I think the two can be combined very well indeed, and I think they are combined.

2016. (*Mr. Algernon Law.*) You speak of the educational results of exhibitions, but cannot that education be obtained be merely visiting the exhibition, and not sending goods there?—It could be so obtained if all nations were to exhibit; but if all the nations fell out you would have no exhibition at all.

2017. Would that not be the best result in the end—that there should be no exhibitions?—That would be one way to work towards it, of course—to prevent the exhibits reaching the place. But if it is to be a direct educational exhibition, then a nation like Great Britain should be represented, too.

2018. Did you hear whether the British chemical exhibitors at St. Louis gained any commercial advantage later on from having exhibited—you were connected with them, I think?—I have heard no complaints at all; and I believe they were all satisfied. We got them awards in nearly every case.

2019. They may have been satisfied with the awards, but were they satisfied with their sales afterwards; was any improvement shown in their sales?—Firms that I am intimately acquainted with—and I am consulting expert to some firms—are satisfied. But commercial firms will not tell you about this.

2020. Did you hear whether the paper people had any success from it?—The English manufacturers were very poorly represented in that department, and I do not know.

2021. What happened to those who were represented?—I do not know, and I could not say.

2022. You suggested that it would be a very good thing if the Government sent out experts to visit exhibitions and report upon them, I think. You were not aware, were you, that that course had been suggested in the case of the St. Louis Exhibition by the Foreign Office in conjunction with the Board of Trade, and that we were told by the Treasury that if the Royal Commission could assure us that there would be a sufficient surplus shown from the grant to the Commission to bear this expense, they would consent. We asked the Royal Commission whether they would have the sum—I think we mentioned about £1,200 to pay eight men at £150 apiece, because we thought many men would like to take the trip for the information that they would gain for themselves. But the Royal Commission said that they could not say whether they would have anything over, though they afterwards returned something like £20,000 or £30,000 to the Treasury. You have not heard that, have you?—I have not heard that. My suggestion was not that the department should send out special experts, but that they should get reports from the jurymen who are experts in their particular lines. I think you would find members of the jury who would be able to report on every section of the exhibition.

2023. We anticipated that, and we thought we should have to offer them something for the job?—It would be extra work, of course, and they should be paid extra for it.

2024. (*Mr. Wilson Fox.*) Following up what you said just now about the jury system, I think I heard you say that points were given because a firm had been established for a long time. Are many points given for that?—I think it is five out of 100. It is not much, but it may be the turning-point in a prize or an award.

2025. Who framed those regulations? Was that an international understanding between the jurymen?—No. The committee of the exhibition in the States framed the rules.

2026. And all the foreign juries, including our own, had to conform with them; is that it?—Yes.

2027. If awards are given in the way which you have described, do you think that system has operated at all against the best firms competing, because they know those awards really are not worth very much?—No. When they compete they do not know anything about the rules, and a great many of them do not know anything about them afterwards, either.

2028. There is an impression among the British public that these awards, in fact, are not worth very much. Do you think that some of the best firms—the really leading firms in England—have got that in their minds, and that they do not care to compete for what they know is not a real honour?—I think many firms that have had the highest awards several times lose some interest in getting them again. It is only repeating what they have already got.

2029. Especially if they are given cumulative marks and it is taken into consideration what they have done in previous exhibitions?—Yes.

2030. What is the object of that particular rule about giving marks for the length of time which the exhibitor has been in business. In other words, giving extra marks to an old-established firm?—"As showing whether exhibit is a development of an original invention or is an improvement on the work of some prior inventor." They themselves give the reason, or a short reason, why they have put it in.

2031. (*Chairman.*) That is a very old regulation, is it not?—Yes, it is; but I ought to say that the rules at Milan were totally different.

2032. Did not the old standing of the firms come in there?—No, not at all; it was totally different at the Milan Exhibition.

2033. (*Mr. Wilson Fox.*) Have you different rules at each exhibition?—Yes; but there are certain points which are continually recurring. The reason I mentioned this was because our jurors are quite innocent of all these things, unless they happen to have been at an exhibition before.

2034. Do you think you could get a collection for the use of the Committee of all these rules for jurymen, so that we might see them?—They are in all the reports of the exhibitions; you will find them all there. Our British reports contain them.

2035. You told Sir James Kitson just now that you thought exhibitions make excellent places to go to for the purpose of getting technical information. If that is so, which I do not wish to dispute, does that not give some ground for the feeling in the minds of a number of our manufacturers that they will get their things copied if they send their goods to exhibitions?—You need not necessarily copy a man's goods, though you may gain information from them.

2036. But still, you would be wanting in ingenuity if you did not. If a man went to an exhibition to find something out, and he was in business, even if he did not copy it, would he not bear it in his mind, and do his best to adopt it when he got home?—Certainly; that is why I think our manufacturers should go, because they can learn a great deal more from the foreigner than they can teach him in most industries.

2037. Do you think we are so backward in this country that we have more to learn from the foreigner than the foreigner has to learn from us?—No; but I think the accumulated invention of the rest of the human race is rather more than the invention of this small portion of it.

2038. Do you not think that in the trades in which we are predominant—and we are predominant in certain trades—we should be likely to find the manufacturers refusing to exhibit?—I do not think they would be giving themselves away if they did exhibit, because if the foreign manufacturers want any information it is the easiest thing in the world to get it from

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any trade in Great Britain. You can go and buy their workmen up. Give a man £1 a week more and he will go to them, and there is nothing to prevent it.

2039. Do you find that our workmen will go abroad on those terms?—Very willingly. You may find them all over the world.

2040. You do not find them much, except in America, do you?—Yes; you do in Russia especially. There are numbers of them in Russia. They have started the chief industries there, and they got the machinery to start the industries through England.

2041. At any rate, it is your opinion that there is no danger in the British manufacturer having his goods copied by sending them to exhibitions?—I will not say there is no danger, but I say the danger is so small that the benefit he would derive from going to an exhibition would be greater than the loss occurring to him.

2042. You suggest that there should be a committee to run exhibitions and to manage exhibitions, and you say that it should consist of technical societies, I think?—And industrial societies.

2043. Then you would include Chambers of Commerce, I suppose?—Yes, certainly.

2044. Therefore it would be rather a large committee?—Yes, it would be a large committee.

2045. Then you say there should be departments of the Government represented?—Certainly.

2046. You would only have certain departments of the Government represented, I suppose—the ones likely to be affected by exhibitions?—Yes, I think that would be so.

2047. Some of the departments of the Government would not be affected at all by an exhibition, would they?—No.

2048. Would you have the trade element predominant in such a committee as that, or the official element?—I am afraid it would be rather serious if it were altogether official. I think the trade element should have a voice in the matter equal to the official element; but at the same time it is quite clear that there ought to be a substantial official element present. The Treasury would insist upon that in any case.

2049. If there was a Government grant, would you suggest that it should be made to that body who would have the spending of the money?—Yes, I think so.

2050. Would that body which you suggest be a permanent one, or would it only be formed for each exhibition?—I think there should be a portion of them permanent, and I think that there should be means for continually rejuvenating that body. I think it would be a very serious thing if persons were named to represent certain societies or associations, and those men should continue to remain on the board for years and years without being changed. Their term of office should be limited.

2051. I am putting it to you, what steps could be taken to ensure some continuity of policy in a committee of that sort?—I think that could be done if you had the members nominated, say, for five years, and they were to retire at the end of five years, and the periods were to overlap. Then you would have a continuous policy. That is what we have in connection with the National Physical Laboratory.

2052. Then you would have a secretary, more or less permanent, who could carry on the records?—Certainly; you must have officials who would carry out the active work, and who must be linguists also.

2053. You have been to a good many exhibitions, I understand?—Yes.

2054. Have you considered that the British exhibit has compared favourably with the foreign exhibits?—In many cases not at all favourably; yet I have known what the country can do. I know it does not at times represent the state of the trade of the country.

2055. Can I put it a little higher—can you say that in most of the exhibitions you have visited the British exhibit on the whole has not compared favourably with the foreign ones?—In many of them that was so.

2056. Would you say in the majority of them?—Yes, I think so. Many of them are far away, and there are tariff questions, and so on, which affect our representation.

2057. (*Sir Swire Smith.*) We have not done our best?—It is not altogether that, but it is no good sending goods to people who shut the door in your face.

2058. (*Mr. Wilson Fox.*) However that may be, we are no worse off than other foreign nations, are we?—Yes, we are.

2059. The same tariff applies to them?—No, it does not. We have got discriminating tariffs against us.

2060. (*Chairman.*) Where—in the United States?—Yes.

(*Mr. Wilson Fox.*) But in respect of only a few articles?

(*Chairman.*) Such as whisky, pictures, and statuary?

2061. (*Mr. Wilson Fox.*) I really do not think that can be made a point of, can it?—I am not familiar with all the tariffs of all the countries, but I know that at St. Louis we had a very excellent lot of pictures, and there was a discriminating tariff of 5 per cent. against Great Britain as compared with all other nations.

2062. That is quite true; but let me take the general trade of the country. However the tariff may be for pictures and whisky, the same considerations as to tariffs apply to the foreign countries as to us, taking it as a general statement, do they not?—Yes, I think that would be so generally, but I am not an expert on those matters.

2063. In showing in America—with the exception of whisky, pictures, and statuary—we are not more handicapped in getting our goods in there than France or Germany, are we?—I do not think we are, except by our geographical position.

2064. We are not so very different to France in regard to our geographical position, are we?—France and Germany, for instance, have coterminous boundaries, and naturally more trade goes over a land boundary.

2065. I was talking of getting the goods to America?—Yes, I understand.

The Right Hon. the Lord Chief Justice of England (Lord Alverstone, G.C.M.G.), called and Examined.

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2066. (*Chairman.*) I think you have been connected with several exhibitions?—I was on the Commission for the Inventions and Music Exhibition of 1885; I am not quite sure whether I was on the Commission for the Colonial and Indian Exhibition of 1886, but if I was not, I was on some of the committees; I was chairman of the Chicago Commission, 1892-3, and I was on the Paris Exhibition of 1900 and the St. Louis Exhibition of 1904.

2067. You visited most of those exhibitions, I think. I know you were at Chicago, because I saw you there?—I visited them all, except St. Louis. I was at Chicago for about ten days, and at Paris for about a week; and, of course, I visited the English ones constantly.

2068. Have you formed any opinion as to their effect on the manufacturing and exporting trade of this country?—One cannot go through the amount of work I have done in connection with them without forming some opinion, but I do not put myself forward at all as giving an expert opinion on this matter. It is a question I have very often talked over with exhibitors, and, so far as my experience is worth anything, I have formed a general opinion upon it.

2069. I understand that there are trades which have been benefited by these exhibitions, in your opinion?—I do not think that you can answer the question as to their having benefited the manufacturing and exporting trades in a sentence, so to speak. I think there are trades to which they have been distinctly beneficial, and there are trades which of recent years, from what one learns, to which they have not been beneficial, and some people say they have had a contrary effect. When you are dealing with this question of

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exhibitions, I think it is very important to keep in mind the great change that there has been since the year 1851 or the year 1862. I should say down to about 1870 to 1875 Great Britain was so far in advance of all the other nations that I should have said the exhibitions at which Great Britain exhibited were distinctly to the advantage of everybody here, because in many fields of the manufacturing and export trades we had absolutely no practical competitor, and therefore the more that British goods were seen the better. Since the great development of German industry and of American industry, not to speak of other nations not so powerful from a trading point of view, the problem has entirely changed. I think that since 1880 there are trades as to which it may be said that it is distinctly disadvantageous. Even up to the present time, or certainly up till the end of the last century, exhibitions were still very beneficial to many of the manufacturing trades like Manchester goods and special productions like soap, and I think—though I speak with great deference in the presence of Sir James Kitson—to certain of the engineering trades or certain classes of engineering. I should say most certainly to some of the makers of mechanical machinery for trades like wool-combing, silk-working, cotton-spinning, and certain minor industries. It is difficult to give any very typical instances to show that we are producing things that caught on or were likely to catch on when they were first seen. I think exhibitions were distinctly of very great value even up to the end of the last century. Unless any question is asked me which might refresh my memory, I do not think that I could myself indicate more clearly any trade that so far benefited. As to the class of export and manufacturing trades which to a large extent, as far as my experience goes, have not derived benefit, I have urged on many occasions during the last two or three exhibitions I have myself gone to see, the leading people in the trades with whom I have been brought in contact, partly through patent cases and partly through the interest I have always taken in scientific work and manufacturing work, that they should exhibit; but they have distinctly told me that the exhibitions were a disadvantage to them, and that the only result was that any ideas which could be copied, without very high technical knowledge in the particular manufacture, were copied in the foreign countries, and that, at any rate at the date of which I am speaking—since 1885—they considered that it has been impossible for them to exhibit with any advantage to themselves. I do not know that any particular advantage would be gained by my naming any particular trades in that respect, because I am quite sure there are others who could give the Committee better information; but I am satisfied that there is a considerable class of manufacturers among whom that idea does prevail—that the only effect of exhibitions is that their good things are taken away. To a certain extent that has been very much accentuated in America by the high tariffs. I do not think the feeling prevailed as strongly in the Paris Exhibition, although there I was told the same thing to a large extent went on by the Germans taking information from the British exhibitors, and not giving anything back.

2070. Have you anything to say as to the effect on British arts?—There I cannot give anything like an expert opinion. Artists and others whom I have met certainly think, many of them, that it is almost essential to British art that there should be exhibitions of British art, on the ground of the absolute necessity of keeping British art before the artistic world. Some have also told me that in branches of British art—for instance, water colours and what I may call the least expensive form of art—there is a distinct commercial gain. But I am rather afraid, from what I have learnt from Sir Edward Poynter and from others in connection with art—Sir Isidore Spielmann will correct me here if I am wrong—that direct pecuniary result to artists has not followed from exhibiting. In connection with your question, which of the particular industries or classes of industry have chiefly benefited by exhibitions, and in what way they have benefited, I want to say there is one aspect of exhibitions which must, I think, be kept in view quite independently of the direct beneficial effect on either the manufacturing and export trades or the injurious effect on them. I am convinced that it is absolutely necessary that British industries shall in some shape or other be represented at these exhibitions from the point of view of maintaining the British reputation, although I quite understand that an individual manufacturer may say, "I have nothing to gain and everything to lose by my manufactures being exhibited, and personally I am not willing to undergo this great expense for no great gain." I am quite satisfied of this—that, speaking of British trade as a whole, it is essential that the British reputation should be maintained by means of exhibitions or through exhibitions, as well as in other ways. If the result of any feeling that there is undue competition by foreign countries, or that individual manufacturers do not get any direct benefit by exhibiting, is that British exhibits practically disappear from foreign exhibitions, I think it would be lamentable; because I am perfectly satisfied that the indirect effect upon British trade would be very great. To put it shortly—if I am not occupying too much time—you must maintain the reputation of British manufactures in some way or other, and I think it would be impossible to regard solely the question of whether any particular trade has benefited, as being sufficient to enable you to form an opinion as to whether we ought to take part in exhibitions.

2071. Then you are rather inclined not to go into details as to the particular industries which have benefited or the reverse?—I do not think I can go further than I have. I may be able to answer a specific question about it, but I do not think I can myself remember any particular industries in which I could give instances beyond those that I have given.

2072. But you think from the general point of view that this country is almost bound to go on exhibiting?—Certainly.

2073. Have you formed any opinion as to the effect of exhibitions on the general commercial relations between the countries concerned?—I have not the slightest doubt that there has been enormous benefit.

2074. Would you say there is no question about that, then?—I do not wish to speak of the general commercial relations as between individual firms or as affecting individual firms, but I have not the slightest doubt that, speaking of the general commercial relations—such as improvements of intercourse and improvements of information afforded from one country to another, statistical information and scientific information—the result has been distinctly beneficial in every trade. I desire to point out—and I think the members of the Committee understand me—that that is quite independent of what I may call the personal individual benefit to any manufacturer.

2075. In regard to our formal question, "Do you consider that the direct commercial results obtained by the official participation of this country in international exhibitions has been such as to warrant his Majesty's Government in giving grants for the organisation of exhibits in future." I understand that you are rather inclined to distinguish between exhibitions and exhibitions?—Certainly.

2076. You think each case must be dealt with on its merits?—In the first place, in my judgment there must be official participation for reasons which I may as well explain now as at any later period. If I do not make my meaning clear the members of the Committee will be good enough to ask me, I am sure. I think in the early exhibitions you could rely to a very large extent on private enterprise. As I have said—and I do not want to repeat myself—it was so enormously to the benefit of British manufacturers and British inventors from 1851 down to 1875 to exhibit, that you could safely leave it to private enterprise and private energy. But since the causes have either operated or been thought to operate, to which I have endeavoured to refer, it certainly is impossible to get a sufficient representation, and it is impossible, I think, to get a representation in the classes of manufactures that ought to be exhibited. I think there must be official representation on behalf of any country that is going to exhibit with effect in international exhibitions. That leads me to the second part of the question—that is, what sort of grant should be given, having regard to the terms of your question? It seems to me that one important thing to be borne in mind is, as I have said, not the benefit to any particular inventor or manufacturer, however great he may be or however good his work may be; but the thorough representation of British trade and British commerce, British exports and British manufactures—including of course the Colonies. I have been convinced that you cannot properly carry that out without collective exhibits.

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I believe that in order to get a good collective exhibit you must put it in the hands of some superior authority. It is perhaps a little difficult to speak, even in evidence, about such a matter, but there is no doubt that trade jealousies—very natural trade jealousies—do, to a large extent, interfere with collective exhibits which are got up by private people. We did—as Sir Isidore Spielmann and other members of this Committee will remember—make very great efforts in the St. Louis Exhibition and also in the Paris Exhibition, but particularly in the St. Louis Exhibition, to obtain collective exhibits. Several of us visited particular industries and trades of which we knew the leading members, and in one or two—the sporting-gun trade, for instance—there was a very effective collective exhibit at St. Louis. But, not attempting to deal with any particular exhibitions, I am quite satisfied that, in order to secure the best benefit either in direct commercial results or in indirect commercial results, there will have to be in future an organisation of the British exhibits, if possible, by an independent authority, like some branch of the Government. That is all the more necessary, because if exhibitions are going to be continuous and to be more frequent, we shall not go to all exhibitions in the same way. But if there is an important exhibition, then I think the collective exhibits should be taken charge of, if possible. If an important trade like the cotton trade, or the gun trade, or the dyeing trade, or anything of that kind, take it up and then organise a collective exhibit—leave it to them, but I am satisfied that you cannot rely upon them only.

2077. In the collective exhibit it is not necessary that the individuality of each part of the exhibit should be merged, is it?—Not in the least.

2078. You could still keep a record of the different contributors?—Undoubtedly, and also you could give an opportunity to individual contributors—indeed, you could give the same opportunity to all of them—if they like, to take a greater part in what I may call the working of the exhibit over there as by sending over representatives. But you will never get over the jealousies in various branches of English manufactures—not unnatural jealousies; on the contrary, very proper jealousies. If the collective exhibits are not under some independent person's control, many will always think that justice has not been done to them. Although they are very good friends, many of the manufacturers of England, in their particular arts and sciences, yet still there is a kind of feeling that they may not have justice done to them if the collective exhibit is not controlled by some independent authority.

2079. As to that control, I take it that you would be in favour of some Government supervision, either by a Royal Commission or by a permanent organisation?—You are a little anticipating me there—but quite rightly. Speaking of the paramount organisation, I know nothing better than a Royal Commission, and I do not think it can be done by any permanent body.

2080. I am going to ask you if you have considered whether there could not be a permanent body, some sort of society or committee representing the different trade interests, composed of trade societies, chambers of commerce, and the different technical societies, and presided over and controlled by a permanent department, say, at the Board of Trade, which shall hand on the tradition from one exhibition to another?—I am afraid I have never thought of it. I think it is a very admirable idea, and one that should be very carefully thought out; but, as I say, I have never thought of what I may call an exhibitions department under the Board of Trade. Do not think for a moment that I say it is not a very good idea—I simply say I have never thought it out at all. If you recognise that you cannot leave this to private enterprise and private energy, I have never thought of any other means of doing it than by a commission *ad hoc*. I should like to think over your suggestion; I will send you a little note upon it.

2081. We should be very glad if you would do so?—With a permanent department under some sort of control, I think you would always want to have fresh men introduced for a particular exhibition in all the important cases, both from the point of view of not getting too much into a routine course, and from the point of view of getting fresh energy to work at it. Looking back at the last five or six exhibitions, taking three in England first—the Fisheries, the Inventions, and the Colonial and Indian Exhibition, there were separate bodies for each, and I do not think those exhibitions at that day would have been as well managed if the same body had done all three. I do not think Chicago, Paris, and St. Louis would have been equally well done if it had been done by the same commission. But I should think now in the present day there is a great deal to be said for having what I may call an exhibition department of the Board of Trade or some Government Department.

2082. A small department to continue on the work?—Yes. A great deal could be said for it. It will not take the place of a special organisation; but it might be very useful as affording general information.

2083. For one thing it could keep the records?—Certainly.

2084. Do you think that would be an advantage?—It would be a great advantage to have all the records in one place.

2085. We have found a great difficulty in getting hold of the records of exhibitions?—There is the greatest possible difficulty about it. A certain number of copies are printed, and those that are not actually given to the members of the Commission and to leading men in the trades, or go to the public libraries, disappear altogether.

2086. Perhaps you are aware that if it had not been for the society you are connected with, the Society of Arts, we should have had greater difficulty in getting the records than we have had?—That is perfectly true. I believe the Society of Arts has more of this information, probably, than any other body. But you are perfectly right; it is difficult to keep proper records of the sort of thing that wants to be done, unless they are all under one control.

2087. Do you consider that equally satisfactory results could have been obtained by private enterprise?—I desire here to supplement what I have said with regard to collective exhibits, by saying that I think that it is only in very exceptional instances that you can rely entirely upon getting collective exhibits from the trades by private organisation, and I think it is going to become more difficult. The more exhibitions there are, the absolute necessity of having the best possible exhibits will increase the difficulty of getting collective exhibits, unless some public department has the control and charge of them. I do not remember—Sir Isidore Spielmann will probably tell you—how many collective exhibits there were at St. Louis, but I do know that we tried in a great many trades to get the people to combine, and we found it hopeless to do it.

2088. Assuming that public money is, in any case, granted for the organisation of official exhibits, do you consider that a grant should be made subject to any special conditions as regards the accommodation and facilities offered by the exhibition authorities; and the number and quality of exhibits offered by British firms?—I do not quite understand what is meant by "the accommodation and facilities offered by the exhibition authorities."

2089. That refers to the amount of space offered and the good situation, and also to facilities for loading and unloading?—To my mind it is rather putting the cart before the horse. What I want is to see you do the best you can for your own exhibitors. Take St. Louis: If you have got behind you a big Commission and a strong Commission, or, we will say, a strong department of the Board of Trade, and you say, "Now we are going to do our utmost to make our British exhibit the very best," which pleases, of course, the foreign nation, you are in a position to demand facilities and accommodation. But I do not think it would be possible in the working of the thing to say, "If we get a grant of 25,000 square yards the Government will give £50,000, or if we only get a grant of 10,000 square yards they will give less." I think that is approaching it from the wrong point of view. I do not see how the amount of the grant is to depend upon the facilities that the exhibition authorities offer us. The amount of the grant will depend on the character of the exhibition, and the amount of the support that it is supposed it will get in the United Kingdom.

2090. Should it not depend on both? Should we take a costly part in an exhibition if we were not going to be well treated there, and have a large amount of space?—Does that not really depend on the character of the exhibition? Take, as it were the pecuniary question. I will take Chicago first. We originally undertook to do Chicago for £25,000—I think that was the figure, at any rate that is my recollection, and

I am sure I am not far out. What we got in the way of space and everything of that kind was not the least affected by that, and I do not even know that the American authorities knew the amount—in fact, I am pretty certain they did not. Within a year, or perhaps nine months after we started—because the Chicago Commission went on for three or four years—questions were asked in Parliament as to what part the British Government were taking in the Chicago Exhibition, and, as the Chairman of the Commission, I saw the Chancellor of the Exchequer (I think it was Sir Michael Hicks-Beach), and we got the grant increased to £75,000, or thereabouts, with which we did very well. I cannot quite conceive the Government saying to a foreign country, "If you will give us large accommodation we will give more money." Of course, you will not go to an exhibition at all unless you think you are going to get proper accommodation. I do not quite see how the grant could be made subject to a condition as to what the exhibition authorities offer you.

2091. But you think it would depend to a certain extent on the support which is going to be given here?—Undoubtedly. I think the number and quality of the exhibits offered by British firms is most important. You must remember that you do not know, and you cannot predicate or predict, how many exhibitors you are going to get. But we could judge very well from Paris the sort of support we were going to get for St. Louis, subject to the fact that each successive exhibition presents fresh difficulties, and there may be a greater reluctance to exhibit.

2092. Can you state briefly what have been the methods employed by the British Government in organising exhibits for international exhibitions?—You probably know, if not I can give you some instances, of what has been done. There were some collective exhibits in education; there was a very good one indeed at Paris, which was organised by either the Privy Council or one of the leading education departments. Then there have been collective exhibits of the Ordnance Survey, which were extremely satisfactory; they were done by the Government. There have also been collective exhibits of transport in some exhibitions which have been done by some of the great steamship companies. Of course, those are not very difficult things to organise, because they depend largely upon models, which are things which can easily be got together, and can be always kept and handed about. I do not think there have been any collective exhibits of mechanical engineering—at any rate I do not remember any. Then there were some collective exhibits from Woolwich of military things in one or two exhibitions. Those I remember, but I cannot at present recall any leading instances of collective exhibits up to the present time.

2093. (*Sir James Kitson.*) There has been a collective exhibit of railway rolling stock, has there not?—I remember seeing it, but I was not quite sure whether it was a collective exhibit. At any rate, it was not organised by the Government.

2094. Certainly not: it was organised by the railway companies?—I thought there was one at a place outside Paris.

2095. At Vincennes?—Yes; the exhibit at Vincennes was one of the most interesting, and one of the most popular.

2096. (*Chairman.*) Our next question. How do British methods compare with those of other countries, I do not suppose we should press you very much about that?—I can tell you very little about that.

2097. Perhaps I might say that we are getting a great deal of information from the countries themselves upon that point; but I should like you to give us your experience?—I will give it you in a sentence. All I can say is that the great pressure put upon us both at Chicago and with reference to St. Louis, was that Germany was organising her exhibits collectively, and was giving a very much larger sum of money than we were; and we were urged as a Commission to endeavour to put pressure upon the Government to give us more money, because of the large support which the German Government were giving in order to obtain a collective exhibit. It also occurred to a certain extent in France. Perhaps I ought to mention here one matter which I have forgotten, which is of importance in connection with collective exhibits. That is, that the result of collective exhibits is that you present, especially if organised by a Commission or by a leading authority, a very much better show or appearance in the exhibition itself. The whole department of the collective exhibit, perhaps containing fifteen to twenty individual exhibits, is decorated in one style or scheme, and you do not get a very poor decoration side by side with a very good one. What used to impress us very much was that France and Germany, as a rule, either got their exhibitors to agree to a common scheme of decoration, or themselves took the control so as to impose a common scheme of decoration upon them. So that it does involve the question of the effectiveness of the exhibit itself out there.

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2098. Of course you are aware that in the case of Germany certainly the Government methods are much more strict with their manufacturers than ours?—Very much more.

2099. And they impose their will on them?—They do.

2100. Now what, in your opinion, have been the chief causes of success or failure of British exhibits in the past, and in what way do you think that the defects, if any, could be remedied in the future?—Here I can say, it is pretty certain that up to perhaps 1880 or 1885, as I have already said, the interest of the great manufacturing firms was quite enough to ensure success. Since then, partly from patriotic motives and partly from acceding to requests made either by members of Commissions or by the Commissions themselves, many leading manufacturers have been prepared to go to very great expense from a public-spirited point of view; and also, as you now know, of late years, in connection with some of the great scientific researches going on in this country under the Royal Institution and others, there have been very magnificent exhibits sent out, showing the latest development of science in various ways, some under Mr. Mond, with the assistance of other men like him, which have certainly been well worthy of our country. That has, I think, been the main cause of success. With regard to "failure," I should not put it as high as failure. With regard to British exhibits not being so successful, I think I have practically said all I can say. It is owing to the difficulties that have arisen, and to the impossibility at the present time, having regard to the great expense of these things and competition, to get private individuals to take the same line that used to be taken 20 or 30 years ago.

2101. Having regard to the methods employed by foreign countries, do you consider that the appointment of a Royal Commission constitutes a satisfactory method of dealing with the organisation and preparation of British exhibits; or, if not, what alternative machinery would you suggest? You have already rather given your views on that point, I think, and you still rather prefer Royal Commissions?—With regard to that, all I can say is that I do not pretend to contrast the methods of foreign countries, because I do not know what they are. All I know is that the support the exhibitors get from Germany and France, and from other countries as well, was represented to us, I remember very well, at Chicago as being very much more complete, both financially and in other ways, than our own, largely due to the amount of money we had at our disposal. But, subject to what you have been good enough to suggest to me as to the possibility of a permanent board, to be supplemented, if necessary, by individuals *ad hoc*, I do not know of any better system than the Commission system.

2102. Are you satisfied with the present system of awards at exhibitions?—No.

2103. Do you think we could do without them, or improve the system?—I do not think you can do without them altogether, but I think they want to be very much altered. The whole jury system is a very difficult question. Of course if you do not have awards with regard to the smaller manufacturers, you will lose a certain amount of exhibitors. Whether that would be a disadvantage or not I do not really know. There are objections to the present system of awards. I have often thought about it, and how to meet them I do not really know. One is that large exhibitors, very powerful exhibitors, who undoubtedly are entitled to receive awards, if they do not get the highest, make such a fuss and put such pressure upon the authorities that the authorities give way. I would rather not mention names, but in a few cases in my own experience I have known the exhibitors say, "We will not accept anything except the highest," and some have gone so far as to say they will not receive anything at all—that I do not mind so much, because I do not think it matters. But undoubtedly the present system, I think, does lead to a great deal of influence being brought to bear upon

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the bodies who have to do with these adjudications, in order to raise the standard of the award which is given to a particular exhibitor. I think also that there are far too many awards given. But I do not think you can do without awards. I think there must be some recognition, or some standard of award, else the manufacturers will say themselves, "We really have nothing to show for any successful exhibit we have given."

2104. Have you anything more to say about juries?—Of course you are acquainted with the extraordinary difficulty in getting jurors, and the extraordinary difficulty in being satisfied that you do get the right people. I have always felt that if you got the right men, especially if they were under Government control and paid, that a small commission of experts would be far better than the ordinary jurors.

2105. (*Sir James Kitson.*) Your Lordship has pointed out that there has been a perfect change since 1851, and that the earlier object of exhibitions as a means of disseminating information and of obtaining information as to what others were doing has been changed?—Yes.

2106. I remember the time when we looked on you as the great engineering advocate; and in those days you will remember the foundation of the Institution of Mechanical Engineers, I dare say?—Certainly.

2107. And of the Iron and Steel Institute, the Chemical Societies, the Institution of Electrical Engineers, and so on?—Yes.

2108. All these institutions have been founded since exhibitions began?—Yes.

2109. I put it to you whether through them more accurate information is not obtained and more reliable knowledge disseminated, and, to that extent, whether the necessity for exhibitions and the need for our Government expending large sums of money through the Commissions for those exhibitions as a means of obtaining information, any longer exists? I put it to you that these societies have quite changed the condition of things that obtained in the days that you alluded to?—From an educational point of view I should think Sir James is quite right. I should think it is highly probable that the really energetic students, either in chemistry, or in electricity, or in mechanical engineering or in civil engineering, would in all probability get the information which is obtained and collated by these societies, and that for those students they would more than take the place of exhibitions. But I still do not think that those societies would take the place of exhibitions from a popular point of view. They certainly do not seem to take the place from the point of view of commercial relations, and I should have doubted whether they took the place from the point of view of the spread of public knowledge. But I agree entirely with Sir James Kitson that to a large extent for the professions themselves the dissemination of information by these societies has taken the place of exhibitions.

2110. I think you had the opportunity of recently seeing in my own city the manufacture of certain very heavy locomotive engines?—Yes.

2111. What possible advantage is it to us to send one of those locomotive engines, weighing 100 tons, over a continent, without an order and without its being sold, merely for the purposes of an exhibit?—It seems to me almost ridiculous—if I am to express an opinion, Sir James, on such a point in your presence. But I tell you exactly how it strikes me. I may be wrong, and therefore I would rather express my opinion so that I may be corrected. Take this very case of the engines for light railways. I saw magnificent exhibits at your works at Leeds. I suppose all through the civilised world this question is coming before all the civilised nations, and I suppose there is no greater or more interesting problem than to reduce the tare of your wagons, to increase the load of your wagons, to increase the power of your engines on narrow gauges and the general economy of the working of railways and also of an improved permanent way. I should have thought that an exhibit such as you say, weighing 100 tons, which was a complete departure or an immense improvement on what had gone before, might certainly indirectly—I should have thought directly—be an advantage to the manufacturer of the engines, from the point of view of the construction of railways in all parts of the world, remembering that as a rule these international exhibitions—and I am speaking of the big exhibitions—do draw together the representatives of all countries.

2112. I think your lordship knows that here in Great George Street we are surrounded by consulting engineers?—Yes.

2113. And that all the specifications, designs, and contracts for those engines arise here, and do not arise from exhibitions?—I daresay they do not.

2114. If they do not, then what is the advantage in exhibiting?—You have answered me, Sir James, if you are right. I do not put my opinion against yours for a moment.

2115. (*Chairman.*) We want your opinion, and not Sir James's just now?—I should have said, merely as a member of Commissions, and as having thought of this for a great many years, that great good might result. I will give you a concrete case of your Barsi railway stock, which is marvellous stock. Take the probability of light railways in different parts of Africa, and the probability of the extension of railways in other countries of the world, the southern States of South America, for instance. It is perfectly true that the greater part of those designs have been drawn by engineers within a quarter of a mile of this spot, but I cannot help thinking that if some German engineer has designed and exhibited an engine which he thinks is very useful for such a purpose, it would be a very lamentable thing if Great Britain had no engines to compare with it. I do not say it would do Kitson and Sons very much good directly, possibly not, but I think it would do the trade of England a great deal of harm if it was not there.

2116. (*Sir James Kitson.*) I think you have given me a point in the Barsi engines, because I think a firm in which we are interested has obtained from a consulting engineer in this neighbourhood a recent contract for the manufacture of those engines, which contract we could never obtain in an exhibition?—Very likely.

2117. (*Chairman.*) I do not think Sir James will break down the Lord Chief Justice?—I think he could; and I do not say he has not.

2118. (*Sir James Kitson.*) As representing the traders, I want to know why the Government should be called upon to spend this money on exhibitions; I want to bring out that point?—I can only say they should be called upon, because directly or indirectly, if properly managed, I think it ought to benefit British trade as a whole—not an individual trader, of course.

2119. Now we pass from commerce to art. I think I might remind you that the exhibitions of British pictures have resulted in British works being ordered for the Luxembourg, for Venice, and elsewhere, as perhaps you will remember now?—Some few I do remember. But I cannot carry this sort of thing in my mind, and I do not pretend to say that I know or have a strong opinion about the direct value of exhibitions to art from the commercial standpoint—that is, from the point of view of getting orders to artists or anything of that kind.

2120. (*Sir Swire Smith.*) Sir James Kitson has put a point with regard to steam engines; we could not say the same with regard to the general textile industries, could we?—No, certainly not. I have a strong impression that the exhibits of Platt's and the other great people in textile machinery have produced direct as well as indirect benefit to British trade. I should like only to say that it is possible that the extraordinary development of America may have shut certain markets to us, particularly having regard to the tariffs, but I do not think that is an argument against our continuing to exhibit that class of machinery.

2121. Carrying it from the machinery to the textiles themselves, surely you would consider it to be of great importance for the general education of the public?—I agree entirely. That is why I mentioned cotton goods and those sort of goods when I was speaking on that point.

2122. Would you give Government assistance to provincial exhibitions?—Do you mean provincial in this country?

2123. Yes, or sectional exhibitions like the motor exhibition or the electrical exhibition?—No, that is too small. I should say certainly not there. I am very glad you put the question. I think I should say that the Government ought never, as a principle, to give financial aid to anything but an international exhibition. If it is worth the while of a trade—the dairy trade, or the agricultural implement trade, or the bicycle trade, or the motor trade—to get up these great

local shows, I cannot think that it would be the duty of the Government to assist that particular trade.

2124. Do you consider it would be desirable to hold an international exhibition in this country at an early date?—I have been very much in favour of it, but, of course, my opinion is only that of one. I think one mistake we have made is not having a really great exhibition in England again. We were the original pioneers, and I always hoped there would have been one in 1901, the jubilee of the 1851 exhibition. So far as my opinion is worth anything, I think it would be a very good thing to have a good international exhibition, but it must be thoroughly well done.

2125. And, of course, it would be a very great advantage now. You say that we have got to something like equality in equipment throughout the world in manufacturing a machine, and so forth; but it would still be desirable that we should have a great assemblage of exhibits of different kinds, would it not?—With regard to equality of equipment, I do not think we have got an equality of equipment throughout the world. I think there is great equality of equipment as between the United States and ourselves, and possibly Germany and France and ourselves; but I say we are certainly far better than many European nations, Russia, for instance, and many nations on the Continents of America and Africa. Therefore I do not think there is equality of equipment all over the world, but there may be equality of equipment amongst those nations who took the greatest part in exhibitions in the first instance.

2126. And that the time has come when probably we have as much to learn from them as they have to learn from us?—I do not know about that.

2127. (*Sir Isidore Spielmann.*) With reference to the collective exhibits at the St. Louis Exhibition, we had collective exhibits of art, chemical industries, guns, and ship models chiefly; assuming that we made great successes of these, do you think that with the same amount of trouble, success might not also have attended collective exhibits in other directions?—I ought to say, in order to correct a mistake that I made before, that I believe the art collections at the exhibitions have nearly always been collective. I ought to have drawn that distinction; I forgot it at the time, as I was not thinking so much of art. I entirely agree with Sir Isidore Spielmann that with effort there might have been a very great collective exhibit in many other trades, even in the smaller trades. But the real point that I feel about that is the difficulty of finding who has got sufficient influence and power to work it. We sent people round, particularly at Chicago, and before St. Louis, to endeavour to induce some of the Irish exhibitors, as you remember, Sir Isidore, and some other people to do it. I am not so sure that it could not be done. All I say is that under Government control and organisation there would be a far better chance of getting a collective exhibit than there is by allowing the manufacturers themselves to do it. I see no reason why it should not be effected in many other branches if you can get the right people to work it.

2128. Can you recollect what took place at Chicago with reference to the awards? Was there not some unpleasantness?—There was not any real unpleasantness about the awards. You know there have always been a certain number of agents going about, who try to declare that they could succeed in obtaining awards by their—efforts—that is what I should call it. I do not remember any real unpleasantness beyond this, that in a considerable number of cases we had appeals from the awards, which had to be reviewed by a very responsible committee, and we did at times alter the award. I should not say there was unpleasantness; I should say rather that there was the sort of effort and endeavour to which I referred in answer to the Chairman's question. I do not think it ever amounted to unpleasantness. I do remember, in connection with the exhibition at Chicago, that a man absolutely refused to take an award because it was not high enough, and we would not increase it. It was of as high a grade as we thought the exhibit was entitled to, but of a lower grade than the exhibitor thought he was entitled to. The result was that he would not take any. I do not remember any greater unpleasantness than that.

2129. May I ask if, in your opinion, the grants given to these international exhibitions nowadays are sufficiently large?—No, I do not think they are. They are certainly not sufficiently large if you are going to place this country on the same footing as others. But then I think you must remember this in that connection—that you must look at the British Empire as a whole. There have been very considerable contributions from the Colonies and from India from time to time, but on the general question, speaking of the amounts given by our Government, I do not think there have been large enough contributions in the last three or four exhibitions.

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2130. Do you consider that we spend too large a proportion of those grants upon our pavilions? We have been putting up very costly pavilions in comparison with other countries, and in the case of Paris and St. Louis, if you will recollect, we practically gave them away at the end of the exhibition?—Yes, we did.

2131. At St. Louis we got only £200, I think?—We did the same thing in Chicago, too, where we sold it for a few thousands. I will tell you what occurs to me about that. There has always been this very great difficulty that somehow or other—but it is rather to our credit—whenever I have been on a commission there has always been an objection to putting up a very flimsy structure. At Chicago ours was practically the only permanent building. I do not know whether it is still a yacht club, but I know it was used as a yacht club after that. In the absence of collective exhibits the Commission exhibit is a great attraction, and I believe—but I can only speak from hearsay—that it was a very great attraction at St. Louis. Certainly it was a very great attraction at Paris. It is a very difficult question, and I should not like to dogmatise too much about it. I think at times, particularly if the commissions are in a difficulty about the general quality of the exhibits, it may be wise to have a good representative habitation, but of course it is only indirectly productive; it is not directly productive; and probably we did spend too much money at St. Louis.

2132. Do you recollect how much was received for the pavilion at the termination of the Chicago Exhibition?—It is in the Society of Arts papers. I think it was about £2,000 or £3,000. It was a very beautiful building, though it did not compare very well with the enormous structures of Germany and France, because they were made of lath and plaster and canvas, and ours was made of really very good solid brick and terra-cotta, and there were very fine fittings inside. My impression is that we got at least £1,000 or £1,500. I may be wrong, but that is my impression. Of course, it is several years ago, so I do not pretend to recollect.

2133. With reference to the organisation of exhibitions, those that have not been promoted by Royal Commissions have in recent years been promoted by the London Chamber of Commerce, I think; for instance, the one in 1897 at Brussels, the one in 1903 at Liège, and the one last year at Milan?—Yes.

2134. May I ask your opinion as to whether you think the influence of the London Chamber of Commerce is sufficient to induce important firms to exhibit? I ask that question because it is stated publicly that the London Chamber of Commerce will organise our exhibit in Brussels in 1910?—All I can say is that as my experience goes, certainly not. I do not mean to say that very useful work has not been done by the London Chamber of Commerce, but, having regard to the exhibitions of which you speak, which were comparatively small, I should have thought there was no question about it, and that it would be quite ridiculous to give the organisation of foreign exhibitions to the London Chamber of Commerce. I think it would immediately promote jealousies with other Chambers of Commerce. It is not a national representation at all. I think whatever the organisation is, it ought to be a national representation, and I do not think the London Chamber of Commerce, although it has most able and influential people upon it, would be a national representation.

2135. (*Mr. Malcolm Ramsay.*) Did I understand you to consider that we should participate in, and spend money at all the international exhibitions abroad?—I did not mean to go as far as that. I had it in my mind that we have absolutely declined in some cases. I am very glad you have asked the question. It does give rise to a very great difficulty, because there is this perfectly ridiculous competition among the different States of America, that each new exhibition shall be bigger than the last, which of course is an absurd aspect or view of it. I should have thought the question can only be answered with reference to the importance of the place. For instance, I should have thought it a very serious thing to have a Royal Com-

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mission for either of the three exhibitions which have just been mentioned.

2136. I was going to instance those?—But, on the other hand, not to have had a Royal Commission at Chicago or at St. Louis would have been a very great mistake, and the same with regard to Paris. We had no Commission at Buffalo, if I remember rightly, and we had no Commission either at Philadelphia. I certainly do not think we ought to have a Royal Commission or any organisation of a national character for all international exhibitions.

2137. I do not know whether you are aware of the fact, but I believe the Government has attempted to observe certain principles in accepting invitations to participate in exhibitions. The first condition has been, that the exhibition should be held in the capital of the country, a second, that it should be directly promoted by the Government?—I was not aware of that, but it is the fact, and I think that is what has been the case in the exhibitions where there have been Royal Commissions.

2138. That was the ground on which the Treasury refused to give a grant for Liège, as perhaps you may be aware?—I did not know that.

2139. You would not have advocated a grant for Liège, would you?—Certainly not.

2140. Nor for specialised exhibitions which are now being started, like the Maritime Exhibition at Bordeaux?—No, certainly not. I think it ought to be distinctly international, representing all the interests of the countries who choose to exhibit there.

2141. As regards the amount of the grant, do you think the grant at St. Louis, which was £150,000, was insufficient?—No, I do not think it was insufficient, but I think we had to be careful. Had we had more money, we could possibly have done rather more in connection with the exhibits. But as far as I could judge, not having been there, I think the St. Louis Exhibition was a very great success from a British point of view, and I think the grant was sufficient for St. Louis.

2142. I ask you the question because the exhibitions tend certainly not to get fewer?—I quite agree.

2143. And the financial burden will become very considerable?—Certainly it will.

2144. Would you say in spite of this consideration that the results justify the public in spending money?—I certainly think the results justify the spending of money for some exhibitions on some occasions. I distinctly say not on all. I think the responsible authority ought to decide whether, having regard to representations made from abroad, the town, or the country, and so on, it is a good enough opportunity. I am distinctly of opinion, notwithstanding what Sir James Kitson has indicated, that it would, from a national point of view, be disastrous if we were not represented at the great exhibitions, and represented as a whole under the patronage of our Government.

2145. In the case of exhibitions where there is no diplomatic reason for participating, would you say it is better to abstain altogether than to do the thing on an inadequate scale?—I am not quite sure what is the class of exhibition that you have in your mind.

2146. Antwerp or Milan?—Milan I certainly should not have gone to. However, I think I should like to answer that question in this way—that it is much better to abstain altogether than to do it in an inadequate way. I would rather mass my strength on periodical exhibitions of a large character.

2147. (*Mr. Harris.*) Do you think that one could lay down, as the criterion of the exhibitions at which Great Britain was to be represented, the amount of good that representation was likely to do to our trade?—Of course it is a most important element, but if you put "criterion" on me, I think it is a little too narrow. You see, you cut out the considerations of art to a large extent there. I do not think I can go as high as "criterion," but I should accept it at once as being a very important matter from the point of view of an element for consideration. For instance, I can conceive a very large capital in some very great State in South America, or a place like that, where, great as the country might be or important as the town might be, one would feel that really it would be spending money with an insufficient result on the face of it. It is a very important element, but I do not like to adopt the word "criterion."

2148. So you would not say that the British manufacturer after all is to be the person to decide really whether it is worth while to take part in exhibitions?—Not the only person. Of course, that question would exclude what I should call general commercial relations. I think it would be a very lamentable thing if there was another great exhibition in Paris in ten or fifteen years time, and we said we would not have anything to do with it.

2149. That is what I was working up to. If the traders ought to have the chief say, is it your opinion that it is well worth while spending money on exhibitions?—The trader ought to have a very large say in it. His interest ought to be carefully considered by the authority which determines whether it be a Government Department or a Royal Commission or not; but I certainly do not think his should be the only interest to be considered, although it is a very important and large interest.

2150. As regards Royal Commissions, several witnesses have suggested that the system of placing our representation at exhibitions under a Royal Commission has led to complete absence of method; would you concur in that?—No, I certainly should not. I do not think they know much about it. Everybody makes mistakes; if they do not, they will never do anything. But, with a very considerable experience of Royal Commissions and their breaking-up into committees, I should say that the methods are quite capable of improvement; but may become very rapidly stereotyped and defective. I certainly do not think that any want of method or organisation has been due to the fact that the head organisation has been a Royal Commission, either in finance or art or engineering, or in departmental work. By particular subjects being referred to committees I believe the organisation has been extremely good.

2151. (*Mr. Waring.*) I understand your Lordship to express yourself very strongly on the point that commissions have the dual aspect of national and individual?—Certainly.

2152. And that from the national point, apart from the individual point, they are of extreme importance—Yes.

2153. I do not know whether your Lordship remembers Sir Robert Peel laid it down that in his opinion the gain to the individual was as nothing compared to the gain to the nation from commercial enterprise. May I put it this way, that, taking this as an industrial and commercial age, you would treat an exhibition in one respect as a national advertisement?—Yes. But when I speak of the individual, who may not receive the amount of benefit, it must be understood that I mean really an individual industry or an individual member of that industry. I think from the trade point of view that the direct benefit to the trade must be to the trade of England as a whole. You would not decline to enter into an exhibition because you felt that there were certain trades which it would not benefit if you felt there were other trades which it would benefit. I think it must be looked at as a whole, and as a commercial question from the Board of Trade point of view.

2154. That is from a national point of view?—Exactly; not from a Chamber of Commerce point of view, for instance.

2155. I quite concur in that point. Taking the next point, the question of the form of controlling and directing exhibitions, and the present method of Royal Commissions, may I suggest that we have had great experience in the past of Royal Commissions? Take Paris and Chicago, take St. Louis. Your Lordship states that the German and French courts have impressed you and other members of the Commission as being more effective than the English court from the dramatic standpoint, of the cohesion, the proportion, and the architectural effect?—Yes.

2156. With that experience in the past, why have Royal Commissions not utilised that experience and come on to a comparative basis with those countries, instead of letting us get behind?—I will give a concrete instance, which Mr. Waring will understand at once. What struck us very much indeed at Chicago and some other exhibitions was the French furniture exhibit, which was a very beautiful one. Of course, the French are very prominent in furniture, and the French furniture exhibit was most beautifully arranged. There were entrances to the court, and each of the manufacturers or exhibitors had their

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own sort of area in the court, and the thing could be looked at as a whole as well as looked at from the point of view of the individual man whose table or cabinet or bedstead you saw. I am speaking about the artistic part of it. We endeavoured in one sense to do the same thing, but we could not get the exhibitors of cabinet work of that kind in England to combine. There are many great industries in England which do not lend themselves to the same treatment that furniture does. I can only say it was one branch of our general difficulty that in the different instances we had of combined exhibits, there was combined decoration too, and the Commission largely undertook it. But it is not the case that the Commission went behind from any want of endeavour. Where you had not got a combined exhibit, you could not have one system of decoration, because if it was not a combined exhibit, each individual exhibitor had his own way of putting up red, or blue, or green as he liked.

2157. I would like to state to your Lordship that I do not mean to suggest for a moment that in England in the past there has been any question of want of endeavour. All we are trying to get at is efficiency in the highest degree?—You must get your foundation-stone first, and if you have got the foundation-stone—a combined exhibit—then the Commission could organise the decoration of it as well as anybody else.

2158. Let me direct you to the Paris Exhibition, which confirms exactly what you say as regards the furniture courts. I think the comparative point there was that the courts of the Americans and Germans, who were strangers like ourselves, were dealt with in a much more effective and capable manner than ours?—Had they a combined exhibit or not?

2159. No, they were individual exhibits?—I did not know that.

2160. I am speaking of the treatment of their courts. One witness—I forget his name—on the last occasion pointed out that you did not know you were in the English court, really, until you caught an English name. You went into some avenue, and you saw a mixed-up collection of exhibits, and you were not quite sure that you were in an English court until you saw the name of Doulton, or something of that kind?—I think it is quite possible that something more might have been done in that direction if we had taken the decoration of the courts out of the hands of the individual exhibitors; but that, of course, involves much more direct spending of money by the Commission. Perhaps I ought to give one more fact that has not been mentioned before—that you must remember in some exhibitions the nations have been separate; that is to say, there has been an English court and a French court, and a separate area has been given for each; whereas in others the exhibits have been mixed up in the various classes. In Paris they were mixed up, if I remember aright. But I know that that distinction has been prominently before us; therefore I believe that the foundation of what I may call effective decoration is to get a combined exhibit; then I think we may do it.

2161. I suggest to your Lordship that that is one factor in the matter. Another which seems to strike one is this: Taking your point that you believe we should go very strongly into this question of exhibitions, I take it you would agree that we should endeavour to have the most effective court in the world, and that if we go to an exhibition we should not go into a second-rate, or third-rate, or fourth-rate position, but we should have the first court in the world. I would agree that the national point is an important one; but if it is necessary to help exhibitors, and if we recognise that we are in an age that is increasing from the industrial standpoint, do you agree that it would be desirable to contribute at least comparatively with countries like France and Germany in the future?—In amount, do you mean?

2162. In amount to help the exhibitors?—I do not think I have ever considered it from the point of view of quantity generally, or of a particular quantity. I think that our grants certainly cannot be less in the future than they have been in the past. I am not in favour of subsidising particular exhibitors, except in the matter of things which would really form part of the whole exhibition itself. Take textile fabrics: supposing we had a very large combined exhibit of Manchester goods—calicoes and linens of all sorts—and Irish goods too; then I think that the decoration of that court, which might very likely include 10 or 15 exhibitors, would be best taken in hand by the central body appointing some proper expert to have the decoration of that court carried out by combined effort, and paid for by the Commission, so as to take off from the exhibitor at any rate the mere ornamentation and decoration of the exhibit, from the point of view of getting a uniform and artistic effect and of relieving exhibitors to that extent. But that is indirect relief, and not direct relief.

2163. But can we leave out the factor of what Germany and France do for their exhibitors, in trying to induce the English exhibitor to come and make a great effort?—You cannot leave it out; but of course I do not know their method. If it is direct contribution or subsidy I should be against it.

2164. Would you be against it if the effect of it was that the English exhibitor said: "It is no use. I cannot compete with another country where the Government supports its exhibitor. Why should I?"—I should. Of course there are many nations that we cannot and ought not to attempt to compete with. Certain nations, ourselves most prominently, have got very great pre-eminence in particular points of manufacture, and it would be quite ridiculous of other countries to compete with us. I think that if Germany and France directly subsidise the manufacturer with a view to his exhibit it is wrong; but I think if Germany and France afford indirect facility—as, for instance, undertaking transport, undertaking decoration, undertaking insurance, undertaking the organisation out there, and policing it—it may be additional service to the exhibitors; but all those are things which can properly be called general charges, and they are quite legitimate. I do not believe in subsidising exhibitors.

2165. In view of other countries paying such expenses as freightage, would you help our exhibitors in that direction?—I think that it might well be considered, but I should not like to put money direct into the pocket of the exhibitor with a view to inducing him to exhibit.

2166. With regard again to the question of the Royal Commission, and the point of the expenditure at St. Louis, I understand that there was £53,000 expended on the Commission building there, on the cost of the various officials' travelling expenses, and on entertaining?—I did not know it was as much as that, but I will take it from you. I have not got it in my mind, though I have seen all the figures from time to time.

2167. I think it was nearly half the expenditure?—I thought we had £150,000.

2168. But I do not know that you spent it all?—Very well, I will take it so. What is your question?

2169. The point is this, whether that money was wisely expended, and whether it would not have been better expended in producing the effect I have just suggested on the courts, than on having a single building which was used largely for entertaining, and which, I understand, was practically kept for the Commission and their friends, the general public seeing little of it?—I do not know how that may have been. First, as regards the entertaining, I think that that is absolutely necessary within moderate limits. If you are going to have an effective international exhibition you must be prepared to spend a moderate but at the same time a fairly substantial amount of money in making yourselves thoroughly hospitable to the representatives of foreign nations. With regard to the central building, I certainly think it ought to be largely at the service and disposal of the exhibitors, as well as for réunions, for office work, for bureau work, and, if possible, also for private meetings. There was a complaint at Chicago, before I went out, that we had not allowed the exhibitors to have quite as much access to the Victoria House as they thought they ought to have. That was largely due to the fact that we had accepted a very beautiful furniture exhibit, which was very valuable, and we were rather afraid of its being damaged. But that was altered, and after I was out there I never heard any further complaint. I never heard of any complaint of there not being sufficient use of the Commission building at St. Louis allowed to the exhibitors. What you suggest is quite new to me, and I do not think it is the fact.

2170. I have heard that complaint made?—It is quite new to me.

2171. There is the further point with regard to the appointment made in connection with the general superintendency of that exhibit. Sir Charles Watson in his evidence stated that he thought the most important part of the exhibition was the question of

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entertaining; would you agree?—No, that is not the most important part; but, in consequence of your being good enough to remind me of the point, I may say that I think it is a very important part. Just as I could not adopt Mr. Harris's word "criterion," I cannot adopt your word "*most* important."

2172. You will find that stated in his evidence?—It may be; but, you see, I do not know anything about his evidence. I think it a very important part, but certainly not the most important part.

2173. He had very little knowledge of commercial matters, and I do not think he considered that that was his function?—Sir Charles Watson was a most able secretary, an admirable secretary.

2174. The point of view is this——?—The point of view is this—that it is very difficult to find exactly the man with all the qualifications. You cannot do it.

2175. The point I would like to have your opinion on is the necessity in a commercial age, such as the present, of having at least a valuable and a big representation of commercial men and leaders of industry in order to avoid too great an expenditure or a disproportionate expenditure on such matters as (1) the chief exhibition building and (2) entertaining?—The same people who would be useful to control the expenditure on the exhibition building would not be the people who would be useful to control the expenditure on entertaining; but I quite agree that there should be proper control in both those matters. In regard to the question how much should be spent upon the building itself, I think the presence of commercial men upon the Commission or upon the committees controlling it would be very useful indeed.

2176. Would you not put it as the chief factor? The point being an exhibition of, generally speaking, arts, trades, and industries, the chief factor in the matter should be commercial representation, should it not?—I do not know.

2177. Taking into account the specific aim?—I have got in my mind the fact that there are so many different trades. Sir James Kitson would be most useful in the engineering department, and I daresay he would in the art department also, for all I know. Then there are chemical manufactures, spinning and linen work, shipbuilding and other work, coming down to smaller trades like jewellery and things of that kind. Commercial men in the abstract certainly, but I do not think that the Commission or any body, whether you call it a commission or not, could be properly worked if you had too strong an element of commercial men upon it. The commercial element has to be well represented; I should not go further than that.

2178. I take it that the commercial element in a case of that kind would see that there was not a disproportionate expenditure on (1) and (2); but such matters as our comparative position with other countries ought to be well looked after?—You want, to a certain extent, to have people who can control those people who have got axes to grind. You will always find a certain number of axes that want to be ground, and it is a great thing to have some independent people to check that.

2179. (*Mr. Wilson Fox.*) In the exhibitions which you have visited abroad, do you think that the British commercial exhibits—I mean commercial exhibits as distinguished from art and other fancy exhibits—have compared favourably with the foreign exhibits in those exhibitions?—The classes are very numerous. I would say in classes distinctly yes, but in other classes distinctly no. One has regretted at times the poor exhibit even in such things as machine production. I know that, though the electric exhibits at Chicago were extremely good, they did not half represent the electrical industry of Great Britain, largely because of the idea that had got about that Americans were so much in advance of us, which they were not. I should say that you cannot generalise upon that. In some exhibits we were distinctly superior, and in other exhibits we fell lamentably short, that being largely due, I believe, to the inability in certain trades to get people to exhibit in the present day.

2180. Or from various other causes?—I mean from the causes I have tried to indicate, which, rightly or wrongly, have struck my mind. I should like to say that I think the most important point which has been mentioned to me in connection with this subject is the question of a permanent domicile and a permanent department. Wherever it may be, whether it be quite independent of a Government body—probably better not—I think a permanent domicile, where all the statistics, literature, and experience of these exhibitions could be collected, is of immense importance. I am sorry it never occurred to me before. Whenever I have started work in connection with these exhibitions I have suffered from exactly what the Chairman was good enough to explain, namely, the difficulty of knowing where I was to get the information which I wanted, and I have always gone to the Society of Arts to get it; that is the fact.

EIGHTH DAY.

Thursday, 7th February 1907.

PRESENT:—

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Mr. Arthur W. Down, called and Examined.

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2181. (*Chairman.*) You are a surgical instrument maker?—Yes.

2182. What is your firm?—Down Brothers, Limited, surgical instrument and aseptic hospital furniture manufacturers.

2183. Have you ever exhibited at any great international exhibition?—The only great international exhibition we exhibited at was the Paris Exhibition of 1900.

2184. What did you exhibit?—Surgical instruments and hospital furniture.

2185. Do you attribute any increase of business to your exhibiting?—So far as Paris is concerned, very little, but the time was very unpropitious for British exhibitors.

2186. You mean politically?—Yes, I do. I think that had a very serious effect upon British exhibits.

2187. As a fact, you do not attribute any increase of business to that exhibition?—We have had one or two slight openings as the result of that exhibition.

2188. Have you had any disadvantages? Have you had your goods copied?—Yes. Firms of repute suffer

from this disadvantage, but the presence of a judicious representative does, to a certain extent, minimise this disadvantage. We have exhibited at a very large number of exhibitions of another character.

2189. Special exhibitions?—Principally special exhibitions.

2190. Do you mean abroad or in this country?—We have exhibited at Montreal, Toronto, Johannesburg (South Africa), and in Berlin. Berlin was in December of last year.

2191. Do you attach any great value to the awards which you have obtained at these exhibitions?—You are now speaking of international exhibitions?

2192. I am speaking all through of international exhibitions?—You speak now of the Paris Exhibition, not of the small medical exhibitions?

2193. Were they international?—Yes, certainly; at Montreal, Toronto, and Berlin they were international. The Montreal and Toronto were the annual exhibitions held by the British Medical Association.

2194. They would hardly be international, but Berlin was international?—The American exhibitors were present very strongly at Montreal and Toronto.

2195. And you got awards competing with them?—There are no awards given at those exhibitions.

2196. Did you get any award at Paris?—Yes, we got a grand prix, and we also got a bronze medal in another class; but we did not specially exhibit in that class. We were not properly represented in that class. We were put into it at the last moment. We did not ourselves wish to exhibit in that class, but we were put into it because of the character of some of our exhibits.

2197. Do you think you have got any business from your award at Paris?—I think that an award of that character carries great weight. At home, in the colonies, and also in other countries we made use of that award. We had telegrams from all over the country congratulating us on the award, and we have used it continuously as an advertisement, and we have found it of value.

2198. Have you ever been induced to buy from British manufacturers or foreign manufacturers to any great extent from having seen their goods at exhibitions, and can you specify any definite points on which you have derived instruction or knowledge from visiting exhibitions?—Personally, I think exhibitions have been of use; of course, ours is rather a limited trade, but we have bought tools and machinery from time to time as the result of these exhibitions.

2199. You have not exhibited since Paris, you did not exhibit at St. Louis?—No, we did not.

2200. If you have refrained from exhibiting your goods at great international exhibitions, what were the reasons by which you were actuated?—We refrained from exhibiting at St. Louis because the duties are prohibitive; there was no prospect of establishing any market for our goods in America under those conditions.

2201. The American competition was so severe, counting the duty?—Yes. On most of our goods there is a 45 per cent. duty on going into the States. There formerly was some business done with the States, but that duty put a stop to it.

2202. Would it make any difference to your exhibiting if some provision were made for ensuring that British manufacturers were creditably represented among the exhibits of other countries, and some permanent organisation were available which would minimise the trouble and cost to individual exhibitors?—We are not disinclined to exhibit in any country where there is a probable market for our goods. We do not expect or desire any organisation to relieve individual exhibitors. Concessions as to carriage and customs are usually made. Those are advantages which an organisation might be supposed to further, but those are usually given at all exhibitions, therefore I do not think any new organisation could improve those conditions of exhibitors. We do not think any advantage would be gained by any organisation that might destroy individuality, or which would involve additional expenditure either by the Government or the exhibitors themselves. That refers to two different points. In some sections there was a general scheme of decoration—the American section, for instance, and that must have been put up at great expense. I believe it was paid for originally by the Government, I am not sure. I understood an exhibitor to state that they would have to bear contribution, and I think that that expense was unnecessary.

2203. (*Mr. Malcolm Ramsay.*) At which exhibition was that?—Paris.

2204. (*Chairman.*) I suppose your goods are such thorough specialities that you do not depend much on the decoration of the court. Your goods are entirely for themselves?—I have here a sketch of our stand at the exhibition. (*Produced.*) We had to erect that entirely ourselves, and that was done at a cost of about £300. It is all tiles, and you will see the floor is done with terrazzio. What I want to point out is that each exhibitor must construct a stand that is suitable for his particular class of goods.

2205. You do not want that done for you according to a plan made by a committee?—No, I think not, because I think from constant experience at exhibitions that you want something to suit your particular business and your particular requirements.

2206. You do not want to take part in a collective exhibit?—No, other trades might, but I do not believe in a collective exhibit.

2207. You do not think that is advisable for your particular trade?—No, we have no collective organisation in our trade, we are all fighting each other strongly.

2208. I suppose there are not a great many in your trade?—There are very few; it is a very small trade, therefore it does not allow of that sort of thing.

2209. You depend more on the doctors and the hospitals, do you not?—We depend directly on the hospitals, but it is always through the influence of the doctors. It is for the surgeons we work.

2210. In fact, yours is a very special trade?—It is a very special trade.

2211. To come back to general subjects, are you of opinion that this country should hold aloof from international exhibitions generally?—No.

2212. Do you consider it indispensable that an effective display of British machinery and works of art should be made at such exhibitions?—Yes, a sufficient number of representative British firms will always be found ready to exhibit. Individual firms will always have liberty of action, and can refrain from exhibiting when they think it opposed to their particular interests or those of the particular industry in which they are interested. We should not feel inclined to exhibit in all countries under all circumstances; in the United States we could find no market. I find that exhibiting at the Paris Exhibition cost us about £850. I went through the figures, and put them down, and found it was £847. If we had expended that money in America (and owing to the additional freight, it would have been more than that) it would have been absolutely thrown away, so that firms would not do that.

2213. That is because the duties are so high?—Yes, we could not hope for any market there.

2214. There is a very large market in America?—Yes, but it would be impossible to compete against that protective duty.

2215. Coupled with the strong competition of the surgical instrument makers there?—Quite so. German instruments and goods of a similar character are recognised as not being up to our standard, and one reason of it is, I believe, that when that duty was imposed I heard a German manufacturer state, and I heard others state: We will manufacture to pay that duty. They have a very large market in the States, but they bring down the quality of their goods; they sell them for price, while we go for the intrinsic value of the goods themselves.

2216. Do you mean they are more lightly treated by the tariff?—No; I mean to say that the whole tendency of the Germans is to say, "We will secure those orders at any cost," and therefore their manufactures are kept at a low level; they are determined to have this American trade, and they turn out stuff that will get into America, pay the duty and compete.

2217. You will not do that?—We will not do that. If we did we should lose our English trade.

2218. Have you any observations to make upon the

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organisation of British exhibits at international exhibitions with which you have been acquainted in the past?—Yes.

2219. I think in the *précis* of your evidence you have mentioned the question of decoration?—Yes.

2220. You say you rather protest against large expense in general decoration?—Yes. I do not think that is necessary. I do not believe in paying for collective decorations, and I do not think the Government should be called upon to pay for collective decorations.

2221. Did you approve of the beautiful pavilion there was at Paris. Do you think that helped in any way?—I do not know exactly which you refer to.

2222. (*Sir Isidore Spielmann.*) The Royal Pavilion on the Rue des Nations?—That was splendid.

2223. (*Chairman.*) Do you think that was valuable so far as the exhibitors were concerned?—That is beyond my province, rather.

2224. I was not speaking with regard to surgical instruments, but from the general point of view?—I think everybody admired it and considered that England stood first in that matter.

2225. So you approve of it, though it was of no direct interest to you having a handsome building of that sort?—My remarks referred more to the government of the sections; that the Commissioner should be an official of the British Government, or a commercial man backed up by the authority of the Government so as to be in a position to command respect for the views of the British exhibitors. There were many little points which occurred. I might instance one. Owing to the delay on the French railways, and so on, our goods, which were dispatched in ample time so as to be beforehand, were not delivered. We had to put up tiles and turazzio flooring, and while the mortar was wet there came a general regulation, "You must put your four tons of goods on to your space." We said, "In our case it is impossible, because if we do we shall destroy our walls and our flooring." We could get no redress whatever. The answer was, "You must do it"; so all we could do was to say, "We disobey your orders and take the risk." We did not do it, and fortunately no one moved them on.

2226. Did you go to the British Commissioner about that?—We did go. I do not think we reached the head; that is a matter of memory. This same Commissioner should be able to command respect for his views. When we went to the gentleman who was there he said, "I cannot help it, those are the orders"; and he could not give us any assistance.

2227. (*Mr. Algernon Law.*) Do you know who that was?—It is a matter of memory, but was not there a gentleman named Lloyd there?

2228. (*Chairman.*) You think it was Mr. Lloyd?—I think that is so. We received the utmost courtesy, on the whole, from those gentlemen. I rather believe that British exhibitors on every hand were handicapped. We had an exhibit that required a great deal of light; we were put under a girder, we were packed away in a corner. We had a theatrical wig maker opposite to us. There were dozens of people who went there and afterwards said, "We searched and could not find your place." Of course, many reached it. The same happened to all British exhibitors. If one went through the Exhibition one could not but be struck by the fact that the British exhibitors had always got the worst spaces. This gentleman should be in a position to command respect; he should be a man of business aptitude and in sympathy with the exhibitors, always personally accessible to them; we ought to have someone in authority always personally accessible to us. I do not say this disrespectfully; but we do not want to be ordered, but asked our views with regard to things which are in themselves exceedingly small, and he should endeavour to carry them out to the best of his ability so as to assist each individual exhibitor, be ready to listen to their requirements and, as far as possible, meet them, so long as such requirements do not materially inconvenience the other exhibitors. He should also have a sufficient staff to carry out his orders, and all employed should have the command at least of two languages, English and that of the country where the exhibition is being held. Further, such a condition as this should be insisted upon, that at least one British representative should be on every jury where British exhibitors are concerned. If you look at the jury by which we were judged, there was no English representative upon it.

2229. Do you know why that was?—I think the French treated us very well; the jury were all of them highly qualified men and above reproach; but I think we should have had an Englishman there.

2230. You got the *grand prix* all the same?—We did.

2231. You are in favour of having a British representative on the jury?—Yes, that there should be a British representative on every jury concerning matters in which British exhibitors are interested.

2232. (*Sir Isidore Spielmann.*) Is not the reason of that that if there were not a sufficient number of British firms exhibiting in your department you would not be entitled to a juror by the regulations of the exhibition?—Then I think we are decidedly at a disadvantage in such a case.

2233. Perhaps you can tell how many firms of scientific instrument makers there were exhibiting?—There were very few.

2234. (*Chairman.*) I suppose your case is that naturally there are very few firms in your particular subject?—I think there were a good many in the section. If I remember rightly, we came in a section where there were 300 or 400.

2235. Anyhow, you would urge that as far as possible there should always be a British representative on the jury to avoid the danger of British exhibitors not getting proper recognition?—Yes, I think that should be the case.

2236. Do you know of any actual mischief because of that—in your case you got the *grand prix*?—I do not know of any actual mischief, but I remember thinking at the time we ought to have had an English representative.

2237. You did not get any damage from it really?—No, we did not.

2238. Have you any other suggestions to make?—At one time we had a caretaker, or "guardian" as he was called, in charge of our section who did not speak French. He should have been able to speak at least French and English, because visitors coming through would want information.

2239. (*Sir Isidore Spielmann.*) You do not remember how many English surgical instrument makers there were at that exhibition?—No, I really do not remember how many English exhibitors there were in that section, but there was no other absolute surgical instrument maker from England (Great Britain); there were many from other countries.

2240. That would account for there being no British Juror?—We were in a certain section.

2241. You say that Germany sells inferior surgical instruments fairly well in the States?—Yes.

2242. And the English cannot sell their superior instruments there?—The market is closed against us absolutely.

2243. In the States, although there is a prohibitive duty, the Americans will have first-rate sporting guns, why should they not be willing to pay for first-rate surgical instruments?—That I cannot answer. The most extensive factory of instruments in the world is in Germany, and that firm is connected with a great American firm, you may know the name; they employ thousands of workmen at a little place in Germany, Tuttlingen; the firm was once Jetter and Schaerer, it is now a company, the Actien Gesellschaft Jetter Schaerer; I forget the exact title; it has a branch in America which commands the market to a great extent. Of course there are some instruments manufactured in America itself that would compete with any that we sent over.

2244. You said you did not expect financial assistance in organising your exhibits, so I suppose your exhibit does not occupy much space, and does not entail any great expense in sending it; it packs very closely; exhibits such as you send pack very closely, do they not?—We should have been glad to have had three or four times as much space, but we could not get it.

2245. What space did you occupy at the Paris Exhibition, do you remember; what was the size of your case?—17ft. long.

2246. That is a fairly large exhibit?—We exhibited aseptic hospital furniture; we attempted to represent a hospital operating theatre fitted up.

2247. You would rather be independent of the commission than have any contribution towards the expenses?—Yes, I spoke more of the decoration of the

whole section such as the Americans, Germans and Austrians did.

2248. I think you said at Paris your exhibit cost you £847?—Yes, that was the cost.

2249. Did you get that back?—No.

2250. Certainly not from orders?—Certainly not.

2251. As the result of your having participated there do you not think you got a portion of it back?—I should think that having obtained the Grand Prix we might have obtained that back indirectly.

2252. I suppose you would prefer a Grand Prix to any orders you could take?—I think it was a means of obtaining orders; we advertised that all over the world. When we were first asked to go to Paris our great idea was that we should endeavour to obtain a high award, and we thought there would be a great number of Colonial and British visitors there, but I do not think we saw ten Colonial visitors there. We thought that every Colonial coming over to Europe would surely go to the Paris Exhibition. The time was very unfortunate for British exhibitors. I was a great deal about on the Continent both that year and the previous two years, and every Englishman knows the feeling that existed, and I think that had a very great effect upon our business.

2253. You were perfectly satisfied in having obtained the Grand Prix?—Under the circumstances we were.

2254. Have you exhibited at any of the smaller exhibitions promoted by the London Chamber of Commerce?—Not by the London Chamber of Commerce.

2255. Is Paris the only large International Exhibition in which your firm has participated?—Glasgow Exhibition in 1901 was an International Exhibition.

2256. Those are the only two that you have exhibited at?—No. That exhibition we found pay well. There was also the London Exhibition in 1881. The International Medical Congress met in London in 1881 at the Albert Hall or buildings contiguous to it.

2257. (*Mr. Malcolm Ramsay.*) I understand that the only exhibition at which you have exhibited where there was a Government grant for the British section was the Paris Exhibition. The others you mentioned, I think, were all not subsidised by the Government?—There were none subsidised by Government.

2258. Paris is the only one for which a grant of public money was given?—Yes.

2259. In considering whether you will exhibit at an exhibition do you attach much importance to whether there is or is not a Government grant for the representation of British exhibitors?—Of course, I have experience of two or three hundred exhibitions which are carried on at much expense; I have no experience of any other in which there was a Government grant. I think that is indispensable in the case of a great International Exhibition. We do not pay for our space in such exhibitions; we do in others; we often pay £60 to £100 for space at exhibitions.

2260. Looking at it strictly from the point of view of your own business, you have found it worth while to go to these various exhibitions which have not received Government money?—Yes.

2261. You find that on the whole it pays you to do so in the shape of orders directly or indirectly resulting from your exhibit at those exhibitions?—I am afraid I must qualify that answer; there have been a great number of exhibitions of the Earl's Court type. We once exhibited there, but we did not do it under our own name. We exhibited there for the London Hospital, and they made some hundreds of pounds by charging admission to our exhibition, but it would not do our business any good because it was for the general public. You are speaking of a very special trade. It did not do us any good although it cost us a good deal of money.

2262. On the whole it paid you to exhibit at the special exhibitions which you refer to?—It pays us to exhibit at all special exhibitions. I think it would pay us to exhibit at any great international exhibition if it was in any country where we were likely to obtain a demand for our goods; in any Colony it would, but it would not in Germany, and it would not in the United States.

2263. Would it pay you better than pushing your business by your own private methods, employing travellers to go round, and so on?—We have travellers in India, and at the present time in China and Canada. I do not think we should wish to undertake a big exhibition with all this expense every year, but occasionally I think it is a very good thing.

2264. Could you follow that up by saying why? Does it bring you into touch with more possible customers or with other firms?—Yes. You see even in Paris it was a sort of connecting link in obtaining many large orders. If we are fitting up a hospital (I believe at that time there were several in this country that were on the point of being fitted up), we met the surgeons, we will say, at the Manchester Exhibition; they came to see everything that was new; they went to Paris again and they became convinced that our goods were the best, and then we obtained the Grand Prix, so you see it is a connecting link in business. It is often the continual dropping of water that wears away the stone. There was a surgeon there commissioned by the Roumanian Government to buy for a Roumanian hospital the most perfect operation table that he could find in the exhibition. He purchased one of our tables, and we have continuously had small orders from this hospital in Roumania ever since.

2265. I suppose the same result might have come from any specialised exhibition that you have attended abroad, like the one in Berlin?—It might, but I think that these great international exhibitions attract people from all parts of the world, and they expect to meet there with that which is latest and best.

2266. (*Mr. Harris.*) Have you not rather modified your first statement, that you were very doubtful whether exhibiting at Paris had paid you?—The actual cost in Paris was, in figures, £847; the result in actual orders taken at the exhibition was £200. Of course, the direct results were exceedingly small.

2267. When you said at Glasgow you did very well, were you speaking of direct orders?—I was speaking of direct orders.

2268. (*Mr. Algernon Law.*) You mentioned, I think, that you had suffered from copying, or you were afraid you would?—Yes.

2269. That does not deter you from exhibiting?—No.

2270. You think you gain more than you lose?—Yes, at the other exhibitions, but particularly, we will say, at Paris, we were inundated by Germans, who came and saw and questioned and cross-questioned the man in charge. Of course, we know that we use our eyes when we walk about, and sometimes we see something on a bicycle that we think we can attach to a surgical instrument. We do not object to anything a man may gain in that way, but we do not expect to give the details of our manufactures to our rivals. The Germans try very hard to obtain those particulars. Our instructions, which I am sorry to say I have not here, are to treat all such people courteously, but at the same time not to give away our trade secrets if possible. Therefore I say a judicious representative does minimise any such disadvantage.

2271. There has been no serious case of copying, so far as you are aware?—With regard to our goods—and all other firms will tell you the same—you may send an order to Germany taken from our catalogue, and get it executed.

2272. But that does not deter you?—It does not. I would like to say one word, amongst ourselves, my brothers and myself, we always have one answer to that; that is, "Well, we cannot help it; the only thing is to keep our competitors on the run." That is our business experience.

2273. Since your goods were stopped by the tariff of the United States have you made any further effort to push them into the United States?—No. This is some years ago. Personally I have never had any large business in the States. I have had nearly 30 years' business experience for myself. Previous to that I was with another firm who did do a large business with the States, but it fell off in all that class of goods which came under the 45 per cent. duty.

2274. Are the American goods supposed to be fully up to your standard? We have had evidence here of people who have had a 60 per cent. tariff against them, yet their goods were so special and of such good quality that they could compete successfully with the American-made goods?—All those answers must apply to particular trades. I am not trying to push any idea of my own about trade.

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2275. You have not made any special effort since then to push the trade?—No.

2276. (*Mr. Wilson Fox.*) Do I gather that, owing to the fear of having certain new instruments copied you do not show them?—No, but we avoid it where we can.

2277. Supposing you had a new instrument of a special pattern which other people had not got, would you send that to a large international exhibition?—Yes.

2278. The fear of having your things copied would not prevent you sending your most up-to-date things?—It does not.

2279. If you have a special instrument of great value for surgery, do you not think if the Americans knew of it they would want it, notwithstanding the high tariff; it would be of very great importance to the surgeons out there to use the very finest, best, and most up-to-date instruments?—We do supply a few isolated instruments of that kind. We always have American surgeons here at certain times of the year, who carry back instruments. That is an important branch of the trade, and has been as long as I can remember.

2280. I was rather following up Mr. Law's question as to whether you had given up hopes of pushing goods in America, and had not tried it during the last few years?—It is a question of commercial advantage, and in that case the expense of pushing them would be greater than the results.

2281. You know your own business best. I only want to get your answer?—We do not make an unlimited output.

2282. It must depend upon the results?—With a surgical instrument maker a surgeon gives you an idea and you carry it out. We work matters on the old-fashioned plan that the moment the thing is carried out we say to the medical man: "If you like to describe this thing in the medical papers, we will illustrate it for you," and we send our own draughtsman, and so it gets into the papers. We do not patent it; we never patent a surgical instrument.

2283. I understand you generally to say that you think international exhibitions are valuable to your trade and your particular industry, first of all because an award, if it is a good one, will advertise your goods here, and secondly, because foreigners will see your goods in the glass case which you show at the exhibition, and you will get direct orders from abroad, and increase your export trade. Do I understand those are your motives for showing?—That would depend on what country it was.

2284. I am not talking about a country with such a high tariff as to exclude them?—We should only exhibit where we think it would be to our advantage to do so, to increase our trade abroad as well as here.

2285. Provided there is not too high a tariff?—Yes.

2286. Do I understand that you have to your knowledge increased your export trade through exhibitions?—Exhibitions generally?

2287. Foreign exhibitions?—Yes, but with regard to Paris not to a great extent. I will give you an instance there. I have now, and I have had ever since, some connections in South America, gained in Paris, who were recommended by some of the very surgeons on this jury who said that the English instruments were better than the foreign.

2288. You think you have not only increased your sales at the time, but you have been able to maintain, and perhaps increase, your connection abroad afterwards?—Yes. I would like just to say one thing in regard to that: I have customers who have been continuously buying instruments exhibited at the International Exhibition of London, 1881. Those instruments have found their way into Canada, and for those particular instruments I have had a continuously good trade ever since. I think that is evidence of the value of an international exhibition. They have died out here; they live there.

2289. At all events, you are prepared to go on showing at international exhibitions?—Yes.

2290. Because you think they are a direct benefit to your particular trade?—Yes.

2291. When you spoke about collective exhibitions not lending themselves to your trade, you were, I understand, limiting that principle to your trade. You are not necessarily against collective exhibits as a principle, but you say that that principle does not apply itself to your particular trade?—Of course our trade would be included in a big section; it would not have a section all to itself. I think that collective exhibits would make exhibitors want to throw on to a Government Department what they would not do for themselves.

2292. That is rather another point. I was rather on the point of collective exhibits, as to how far one exhibitor cared to go in with two or three others. I understand from you that where there is very keen competition in trade the exhibitors prefer to paddle their own canoes?—That is exactly so. For instance, you find that enamelled iron goods are something which are sold at every street corner, and some of those goods are used in hospitals. We deal with those that are used at hospitals, among the many other classes of goods. Makers of enamelled iron goods might arrange among themselves after this manner, "We will not touch hospital matters if you will not touch our class of enamelled ware." For a set of manufacturers of that kind a collective exhibit would answer, but for us it would not answer, because we do not want to give our secrets to other men in our trade, and they do not want to give theirs to us.

2293. You prefer to run your own business and try to get the greatest advantage from your own exhibit?—Yes.

2294. If you joined in a collective exhibit, you would be afraid that someone else might benefit by those exhibits?—It would be that, practically.

2295. (*Mr. Algernon Law.*) Why did you not exhibit, say, at the International Exhibition at Liège, and the earlier one at Antwerp?—I went to the Antwerp Exhibition, but we did not exhibit there. That was some years ago. I go to all those exhibitions.

2296. You did not go to Liège?—No, but I was pressed very much.

2297. You did not think it worth while?—No, and sometimes there are other circumstances. I believe in having an efficient representative. There are exhibitions where people take big cases and leave them locked up; there is no one to look after them or to give any information. Those are the exhibitors who complain. When it came to the Liège Exhibition, we did not exhibit because we could not spare the staff.

2298. (*Chairman.*) It was for private reasons?—Yes, reasons of that character.

2299. (*Mr. Algernon Law.*) Do you always leave a man on the premises?—Yes, always at least one man.

2300. Who knows about your goods and can explain them?—Yes; that is the keystone of the whole thing, I believe.

2301. (*Sir Isidore Spielmann.*) You say you do not patent your instruments?—We do not.

2302. Would you not be protected at exhibitions if you did? Would they copy your instruments at these exhibitions as readily if they were patented?—These are general answers to general questions, as a rule; you would have to patent in every country, and the expense of that would be very great in the case of instruments that are changing from day to day, so it is not worth while. Then, also, the medical man does not patent; the idea is the medical man's. We do not do it in our trade. Foreigners do, but Englishmen do not.

Mr. Lucien Serraillier, called and examined.

Mr. L. Serraillier.

2303. (*Chairman.*) You have been on the staff of the British Commissions for the Paris and St. Louis International Exhibitions?—Yes; my connection with the two Commissions covered a period of seven years.

2304. What is your opinion as to their effect upon the manufacturing and exporting trades of this country?—My impression is that they have not any apparent effect.

2305. What is their effect on British art?—I am not in a position to say about that. I should like, if

may, in the first place to qualify my remarks, and say that they only apply to industrial exhibits. I exclude the art section, which is quite a thing apart. In my remarks throughout I also exclude the education section and Government exhibits, such as a collective exhibit of mining statistics, etc.

2306. In regard to their effect on the general commercial relations between the countries you do not think they have any particular effect?—I do not think so.

2307. What particular industries are benefited?—I think it is the small firms and new firms that are benefited by an exhibition, and the firms that are connected with retail industries or small industries. I do not think they have any effect on the industries of the country as a whole; the effect, if any, is on the particular firms that exhibit.

2308. Have you known of any industries adversely affected by exhibitions?—No. I do not think that they would affect any industry adversely.

2309. I understand you do not consider there is any effect upon the general commercial relations, so naturally you would not say that official participation was warranted?—Not if it is intended merely to develop the commercial relations or to develop the export trade.

2310. You consider that equally satisfactory results could be obtained by private enterprise?—I think better results can be obtained by private enterprise, because a firm which has been established some time will know the sources to tap; they will send out their representatives to the countries where they are likely to find buyers, whereas you cannot compel everyone to come to an international exhibition. I am speaking, of course, from the industrial point of view.

2311. Assuming that public money is granted for the organisation of official exhibits, do you consider there should be any special conditions as regards accommodation and facilities offered by the exhibition authorities?—I understand by "the organisation of the official exhibits" you do not mean the organisation of the Government exhibits; you mean the official organisation of the industrial exhibits; is that not so?

2312. Yes?—There is a distinction between the two. If you want adequate representation to show foreign nations what is being done in this country, I think you want a sort of museum of what has been done during, say, the last few years. You have this in the art exhibit, because you there have a selection of representative pictures, and I think that in the case of industrial exhibits you ought to have a similar selection of representative exhibits.

2313. You mean that the Government should do that?—Yes.

2314. There should be an organisation to do it?—I say there should be if you want to have an adequate representation. The same facilities and privileges should be given to industrial exhibits as have hitherto been conferred on art exhibits; such industrial exhibits should then be selected and limited to typical examples. I do not say it is advisable to do that, and that commercial advantages will flow from that. I merely say it is the way of approximating to a more adequate representation of the industries of the country. I look upon the system of collective exhibits as a step in the right direction.

2315. Do you think it would be worth the great expenditure?—No, not as regards industrial exhibits.

2316. You know what are the chief foreign systems; the French and the German. Never mind if you have not studied it, because we have had it from other witnesses?—With regard to the French system, I obtained some information from a conversation with a French gentleman officially connected with the organisation of exhibits when I was in Paris several years ago, and I gathered from him that the French system is really spontaneous; that is, it proceeds from the exhibitor. The French system is in the nature of an independent organised effort of industrials which receives subsequent official sanction. I think that such a system is a better one than the present British system.

2317. I think you have very clear and rather strong ideas about the chief causes of success or failure of the exhibitions that you have been connected with—the late Paris and St. Louis Exhibitions?—Yes, from my experience of the Paris and St. Louis Exhibitions I found that there was a certain apathy to exhibit on the part of manufacturers.

2318. What was the reason of that?—I take it in the first place the tariff question; especially with regard to the St. Louis Exhibition, that was very apparent. The cause of the refusal of exhibitors to participate during the Paris Exhibition was also due to tariff questions; political questions also interfered at the moment. I think the tendency of English firms is against going to the expense of exhibiting. Some of them who have received high awards at previous exhibitions are afraid of not getting these confirmed.

2319. Will you take the reasons you have given in your précis?—They are either too busy to attend to the matter, or too slack, and in that case unwilling to spend the money. I had that experience in connection with the Paris Exhibition.

2320. Did you try to get exhibits for that?—Yes, I was secretary of the Mining and Metallurgical Committee; we were engaged in circularising exhibitors.

2321. You sent out a number of circulars?—Yes.

2322. What percentage of returns did you get as exhibiting?—I could not tell.

2323. Roughly, did you get half?—Nothing like that.

2324. A tenth or one-hundredth?—Something like one per cent.; it was very small. There was an organising committee for the purpose. However, there is not very much to be gained by exhibiting steel ingots and specimens of minerals.

2325. That was the only class in which you took any part?—For the Paris Exhibition.

2326. That was the only class in which you tried to get exhibits for that exhibition?—That was the only group of manufacturers dealt with by the committee of which I was the secretary, but I was on the general staff throughout and naturally in touch with the work of other committees. All the secretaries of committees were members of the staff of the British Commission, and naturally we all knew what happened. The experience of my committee applied pretty generally to all the other committees.

2327. Did the expense of exhibiting make much difference, do you think?—Yes, to some extent; for certain classes of exhibits the expense is very great.

2328. There is also the copyright law, and the danger of exhibits being copied. Did you find that to be a cause?—Yes. We had to get protection from the Government regarding the copyright laws by a Special Order in Council, but even then I think that if a firm has anything new that firm is chary of exhibiting it. Protection against copying is very difficult in each case.

2329. I gather that you prefer the specialist exhibition to the general exhibition?—I do from a business point of view. May I be allowed to explain what I mean by giving you a case in point? I am connected now with an engineering company which is new, and I have sent an exhibit to New Zealand. I have sent it because there is a demand at present for this new kind of construction, because New Zealand is far, and because I have no proper agent there. Therefore I send a small and economical exhibit, with the intention of arousing interest in that particular work; I am also going to exhibit at the Building Trades Exhibition, because that is a specialist exhibition.

2330. Where is that to be held?—At Olympia, in April. An exhibition of that kind is entirely confined to the building trades; nobody goes there for pleasure. You know that people from all parts of the country go there because they want to learn something, and they are nearly all of them possible buyers, therefore it is worth while to exhibit there; but I would not exhibit at an international exhibition—at least not after my company was a few years old and fairly well known.

2331. At your Building Trades Exhibition you will not have many foreign visitors, I suppose?—No, there will not be many foreigners; it is exclusively British.

2332. Do you prefer special exhibitions that are international—there are some, I believe—or do you prefer those that are special in this country?—I would not say that; I think I would favour a specialist exhibition that was international.

2333. Anyhow, you prefer the specialist to the general exhibition?—I think it is more representative. The

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development of all industries is such that only specialist exhibitions can cope with the subject, and they are a better means of education to buyers.

2334. You do not attach any importance to the side shows and the usual forms of attraction at exhibitions?—No; I think the people who go to the side shows are not the people who will be likely purchasers. If they go to the side shows they are going on account of the side shows, and would not take very much interest in the industrial side; those that go for the industrial side may possibly also attend the side shows, but they have gone for the industrial side, and you would get them in any case, with or without side shows. May I give you an instance of what I mean by an international and non-specialist exhibition not being representative of a particular industry in a national section? In the St. Louis Exhibition an area of about 14,000 square feet, excluding gangways, was allotted to Great Britain in the agricultural building. There were only nine individual British exhibitors in this department—I mean by "individual exhibitor" an exhibitor who has a stand of his own, not a man who takes part in a collective exhibit—and one of those nine had as much as 10,000 feet allotted to him.

2335. Out of the 14,000?—Yes; that was necessary, because there was no one else to take his place, and the space had to be utilised. That exhibitor was willing to go and was patriotic to that extent, but that is not a representative exhibit.

2336. What firm was that?—The firm of Joseph Baker.

2337. (*Mr. Wilson Fox.*) Are they machinery people?—Yes. The Royal Commission did the best they could under the circumstances.

2338. (*Chairman.*) I am now coming to the Royal Commission, and I think you have already answered that you prefer the French method to the British method?—If my definition of the French method is correct.

2339. The reasons would not be quite the same. I do not think we need go into that. Do you consider that the appointment of a Royal Commission constitutes a satisfactory method of dealing with the organisation and preparation of British exhibits, or if not what alternative machinery would you suggest?—I do not consider that a Royal Commission is quite satisfactory as regards industrial exhibits, because many of the members of the Royal Commission are not directly connected with industry. I think in the St. Louis Exhibition out of about 107 members of committee, including the recurring names—that is to say, counting over again the names of members who are members of several committees—there were only about six who were connected with some industry; from that number of 107 you have to exclude the members of the Art Committee, many of them are artists, and rightly so, and members of the Education Committee who are some of them Government officials.

2340. How would you propose to improve that?—I think that leading industrials should constitute themselves into organising committees of industries of which they are the representatives. Some of the heads of those leading firms might actually be members of these committees.

2341. You think they would agree to that?—I see no reason why not. For instance, take a case in point, Mr. Joseph Baker is not a member of the Agricultural Committee, he should be, even though he may allot himself space; that is the objection that has been raised, that they may favour their own applications, but I do not think that would be so. Names could be suggested by Chambers of Commerce.

2342. You would make it less official and more industrial?—Yes, in regard to the industrial section. A Royal Commission is an attempt to manage a commercial enterprise on official lines, and is, in that respect, an unsatisfactory solution of the problem.

2343. With regard to the expense for each committee of the department of industry, would you let the exhibitors pay for that or would you wish that to be paid out of a Government grant?—I should let the exhibitors pay for that.

2344. Pro rata?—Yes, pro rata to the space occupied by them.

2345. What should the Government do?—I think that when the Government has sufficient indication that interest has been aroused in the country, and that there is likely to be worthy British participation, the Government should appoint some official who would represent the Government from the social point of view, and would be the channel of communication between these various committees and the exhibition authorities of the country where the exhibition is being held: I think that a small grant would cover that.

2346. You would not have such a large grant as you had at these two exhibitions you speak of?—No, I would not; at least, I would not devote them to industrial exhibits; it might be necessary to have a grant for the fine arts and possibly it might be thought worth while to show an educational exhibit. That of course is not commercial, and would require a grant. For the industrial sections I do not think that public money should be spent in direct assistance to exhibitors.

2347. Now as regards pavilions, would you have those expensive pavilions that you have seen at Paris and St. Louis; perhaps you have not considered that matter?—I have not thought of that.

2348. Do you think they are valuable?—Yes, they concentrate attention on the nation; I think they are necessary to that extent. I do not think it is necessary to spend so much money on these as was spent at Paris and St. Louis.

2349. You think they might be sham and not so substantial?—Yes, I believe that the official grant to the French Commissioner-General for his official representation at St. Louis was about £40,000. The British pavilion alone, I think, cost £32,000.

2350. As regards awards, have you any opinion? Do you think they should be continued?—I am inclined to think it would be better to abandon them.

2351. Altogether?—Yes.

2352. Do you think that people would exhibit all the same?—It may be that awards are an inducement, but they are also a deterrent. I think that the country which gives the exhibition is at a tremendous advantage, as compared with the countries who are participating, in the way of jurors; they swamp the others. Take, for instance, St. Louis. There were jurors in the furniture section who were of opinion that a firm should have a Grand Prix because it had a large output. You will find a Grand Prix awarded to a firm which had a large turnout of roll-top desks—so many hundred roll-top desks every year—it got a Grand Prix, whereas firms with an artistic exhibit could get nothing more than that. There is another disadvantage, and that is with regard to exhibits which are *hors concours*. A firm can place itself *hors concours* by getting its representative appointed on the jury, and an award *hors concours* gives one the impression—and I have never been able to get rid of the impression—that it is a higher award than a Grand Prix, which, of course, is not the case. It gives the impression of special recognition.

2353. Whereas it is only an accident?—It may only be an accident. A firm which perhaps fears that it may not get the highest award may arrange to be placed *hors concours* in that way.

2354. (*Mr. Wilson Fox.*) You took part in both the St. Louis and Paris Exhibitions?—Yes.

2355. Did many firms who showed in Paris refuse to show at St. Louis?—I can only speak from general impressions I have.

2356. I do not ask for the number?—I think you will not find very many firms that showed at Paris repeated their exhibit at St. Louis.

2357. Apart from questions of tariff, which, I understand, were raised, could you give any reason at all, or did you hear any reason given, why firms who showed at Paris did not show at St. Louis?—No; I was at St. Louis at the time the invitations were made to the firms, therefore I am not in a position to give any reason other than that general one of the tariff. I was present when the first circulars went out, and came across this general objection to the tariff on the part of firms who were being invited to exhibit; but when I went out to St. Louis it was in April, and the active propaganda took place subsequent to my departure from England.

2358. You cannot answer that of your own knowledge?—No, I cannot.

2359. I understand that you say that firms may be

too busy to go to the trouble of getting up an exhibit?—Yes.

2360. Does that not rather imply that the firms are doing such a good business that it is not necessary for them to embark on this particular form of advertisement. Is that what you suggest?—I did not intend to suggest it that way, but that is so. That is, as far as that particular firm is concerned; it does not exhibit when it is filled up with orders.

2361. It is satisfied with its present means of advertisement?—Yes. I can give you one case in point at the Paris Exhibition. One of the members of the sub-committee with which I was connected was the head of a firm who were asked to exhibit. He refused to exhibit, on the ground that his firm had enough work for two years ahead.

2362. I put this to you—that the leading firms, the firms which are well established and doing a large business, are less likely to show than the firms which are trying to make a reputation?—Yes, any new firm.

2363. You go on to say that the novelty of international exhibitions has worn off. Do you say, carrying that further, it is a mistake to have too many international exhibitions? You mean that those who show may get tired of undertaking the preparation of and embarking upon the expense and taking the trouble of sending exhibits abroad. What limit would you put on these things?—In France these exhibitions occur in cycles of 11 years.

2364. But, taking the Continent generally, and having regard to how far Great Britain should participate in these exhibitions, how many exhibitions do you think that the British trader or manufacturer can stand in a period of five years? Would they stand one every year?—No.

2365. What would you recommend? What is the limit you would put on his endurance?—I should think one every five years would be as much as is desirable for firms who consider it advisable to exhibit.

2366. About one every five years, you think?—Yes.

2367. You think if you went to traders and manufacturers oftener you would find they would be disinclined to produce such good exhibits as if they had them quinquennially. Do you think you would get a better British exhibit if you showed once every five years than if you showed, say, two or three times in every five years? What is your opinion of that?—I should think that it would be better that you should not show too often, and not apply too often.

2368. That would be your experience?—My experience is connected with two exhibitions extending over a period of eight years, and in both cases there was considerable difficulty in getting industrials to exhibit.

2369. Taking those two large exhibitions which you had so much to do with, what opinion did you form of British commercial exhibits compared with foreign commercial exhibits? Do you think the British exhibits were up to the form of the foreign ones or not? How did the case stand?—In some groups the British exhibit was superior, in others it was inferior. For instance, the British chemical exhibit was better than any other nation's, even than America's, which had a very large space.

2370. Was it better than the Germans'?—Yes, I considered it better than the Germans'.

2371. But take the British exhibit generally, would you say you were thoroughly satisfied with it at St. Louis and Paris compared generally with the commercial exhibits of foreign countries? Do you think it made a good show compared with the others?—I do not think the industrial exhibit, as a whole, was as good as the French or the German, but it was not bad; I mean to say relatively.

2372. I am asking you this because in your *précis* you say: "The failure of the British industrial exhibit at the late Paris and St. Louis Exhibitions may be attributed to several causes"; and then you give the causes?—I think in the question that was submitted to me it was put the "failure" or "success." Of the two alternative expressions I selected "failure," because it expresses my views more nearly. Perhaps, however, it is rather a strong word to use, and I suggest instead "comparative failure." It was not a success if you judge the exhibition from the point of view of representative of the state of the industries of the country. I do not think the other nations were particularly successful either in this respect.

2373. There are two points there—the point you have just mentioned, and, further, were the British exhibits better or worse than the foreign exhibits? Were you proud of our exhibits at Paris and St. Louis, or were you ashamed of them?—I was not ashamed of them, compared with the others.

2374. Were you proud of them?—In the chemical section, yes.

2375. That was a very small portion?—That was one of the largest.

2376. It is a very small portion of British industries, is it not?—Yes, it is. If you want me to express what I should have said if an American had inquired: "Is this typical of what is being done in your country?" I should have replied: "It is not."

2377. I was not there, and I wanted to know what your opinion about it was. Taking the existing organisation of the Royal Commission, you think that could be improved upon?—Yes, I think so.

2378. Do you think it worth while for the British Government to go on spending large sums of money like they did at St. Louis and Paris with the existing organisation?—No, I do not.

2379. You would not recommend that?—No, not on the same lines.

2380. In the last paragraph of your *précis* you say: "I do not suggest that the proposed contribution to the expenses by British exhibitors would be acceptable to them, but if they were unwilling to bear their fair share in the undertaking, it would merely prove that an international exhibition is of little value to them from a commercial aspect"?—I should modify that by saying it would merely prove that the international exhibition was considered by them of little value.

2381. Your point is that if the traders themselves do not think it worth while to pay for their own advertisement, much benefit is not likely to accrue to British commerce from the Government stepping in and paying that which the traders do not think it worth their while to do?—Yes, I think it is not desirable.

2382. (*Mr. Algernon Law.*) With regard to your suggestion as to having exhibitions every five years, if you expect traders to participate in them every five years, would not that mean that it was practically continuous? It takes two years to prepare, one year to exhibit, and two years to clear up?—It would be continuous as far as the machinery, but not continuous as far as the exhibitor is concerned So far as he is concerned, it might be 18 months altogether. He might make use of his exhibit, and transfer it to other exhibitions with certain modifications.

2383. You say you formed the impression that the exhibitions had no apparent effect upon the manufacturing and export trade of this country. Have you formed any view what it would have been if there had been no British participation in the Paris and St. Louis Exhibitions?—To give a definite opinion upon that would mean an exhaustive inquiry from all the firms as to what result had accrued from their exhibiting. I do not think that it affects it either way; it merely affects the individual firms who exhibit.

2384. You have not had any information from British exhibitors who have had either advantage or disadvantage from exhibiting at Paris or at St. Louis?—No, I have not.

2385. You have no information; it is only your general impression?—Yes, merely an impression gathered from the tenour of the conversation I have had with firms at different times. I can, however, cite no particular instance from memory. Of course, during the Paris Exhibition some firms told me that they had no benefit by it. I forget their names now. One firm told me they did very well. I can remember the name of that particular firm; that was Seebohm and Dieckstahl.

2386. That was in the course of the exhibition?—At the end of the exhibition.

2387. You have never heard afterwards that they received orders later on?—No.

2388. Not merely sales at the Exhibition? Did you

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hear any complaint against the management by the Royal Commission at Paris? We have had it said that there was very often no one connected with the Commission about the place to help the exhibitors to protect their goods; people were wandering through in disorder, and that kind of thing?—Yes; complaints have been made, but it is very difficult to say who is at fault in these matters.

2389. We have had it to-day given in evidence that people are ready to exhibit in spite of the risk of being copied; and I see that the firm with which you are connected are sending exhibits to a special exhibition where they are more likely to be copied by the specialists who exhibit than in a general exhibition?—Our exhibit is patented in New Zealand, for instance, and we are protected by the patent law there.

2390. Any foreigner taking part in it would have opportunities of copying it elsewhere?—We are patented all over the world—at least, whenever it is patentable.

2391. (*Mr. Harris.*) Looking to the general sense of what you have said, do you think it would have done any harm to the trade of the country if Great Britain had stood out of Paris altogether?—No, I do not think it would have done any harm to the trade, but it might have been interpreted by the French Government as an unfriendly act.

2392. I was merely looking at the trade; you do not think it would have done any harm to the mere trade of the country?—I do not think so. My opinion is you do better business by sending people abroad to represent you and to seek the channels through which you can sell your goods.

2393. That touches another question I was going to put to you. You seized the opportunity of an exhibition in New Zealand to send an exhibit there with a view to making your manufacture known there?—Yes.

2394. If you knew there was an opening for trade there, why did you wait for the exhibition particularly, instead of sending your canvassers first?—Because the opening of the exhibition was concurrent with the starting of our business. I mentioned New Zealand intentionally as a good illustration of a case where, in my opinion, it may be advisable to exhibit.

2395. In fact, at the moment that you become aware of an opening, if there is an exhibition you would look upon that as a very good way of making your start?—Yes, in the case of a new firm. Even if the exhibition had occurred a year later than our propaganda I think I would have gone to it, especially as I did it at very little expense. The exhibit consists merely of photographs and samples; it is not an expensive exhibit.

2396. Would what you say apply to any country, or merely to the Colonies?—To any country where I wanted to open up business. To give you an opposite case, I cannot conceive what advantage a big firm like Platt Brothers, the textile people, have in spending £10,000 or £15,000 on an exhibit in the United States to show their textile machinery—an old firm like that, which is well known.

2397. You do not think they may have much the same object that you had, in fact?—They would in a lesser degree have the same object—to mark the company known—but I think the money could be better spent in other ways.

2398. Would you mind explaining why you said that the awards were a deterrent?—I said they might act as a deterrent because of the fear of injustice on the part of the jurors.

2399. That would hardly be a deterrent from exhibiting, would it?—Unless they saw their way to being placed *hors concours* it might; for that reason I think the art exhibits were placed *hors concours* at St. Louis, and the education exhibit was put *hors concours*.

2400. You were going to give an illustration, I think, of an award acting as a deterrent in the case of an individual, were you not?—No, I do not know of any particular case; I cannot call one to mind at this moment.

2401. (*Mr. Malcolm Ramsay.*) You said that in your opinion the British Government should not continue to act on the present system as regards participation in exhibitions. Do I understand you to suggest that at present the Government first makes up its mind whether it is going to participate, and then tries to find whether industrials will come in? Is that one of the points of the present system?—I do not quite follow your question.

2402. I gathered from something you said that you thought the Government made up its mind first as to whether it was going to participate, and then set about finding exhibitors, and that you suggest that the Government should find out whether anybody wished to exhibit before it decided to participate?—That is so.

2403. Does that correctly represent your view?—That correctly represents my view as regards both the Paris and St. Louis Exhibitions. The Government were invited by the French Government to participate, and an appropriation was made for that purpose—a small one, which was increased. Then it circularised exhibitors to persuade them to exhibit. My point is that it should come the other way about.

2404. In fact, there should be a more spontaneous demand on the part of the manufacturers before the Government decides to participate?—Yes.

2405. Do you consider that the management of exhibitions could be facilitated if there were some sort of co-operation among manufacturers, some means of ascertaining the real sense of industrial people as to the benefits of a prospective exhibition?—Yes, I think so.

2406. Do you think, as far as the industrial side is concerned, the Government would be justified in refusing to continue to give grants for participation in exhibitions unless there was some sort of co-operation among the manufacturers?—Yes, I think so. I think you ought to have a better indication of the willingness of the British manufacturer to exhibit at his own expense before you give official sanction.

2407. Your reason for considering that the individual exhibitors should bear the expense is, I suppose, that you object in principle to the subsidising of individual traders on the part of the State?—Yes, I do.

2408. (*Sir Isidore Spielmann.*) I think you were over at St. Louis and made the arrangements with the authorities before the staff of the Royal Commission arrived?—Yes, I acted as representive of the British Commission.

2409. Had you any difficulty with the authorities? Did you find that they gave us the space that was promised, and so forth?—I found that they made promises which they did not keep.

2410. Can you give us any particulars of them?—Yes. The British Commission offered at some expense to supply a low temperature exhibit, which was a scientific exhibit and not a commercial one.

2411. Professor Dewar's discovery?—Yes, and to send a lecturer. That offer was made on the understanding that the American authorities would provide a special building for the purpose—that is to say, a building away from the main buildings, because of the dangers of the liquid air—and I received that promise from the Exhibition authorities.

2412. (*Mr. Algernon Law.*) Was that in writing?—It was a verbal promise, and it was also in writing, but in American writing.

2413. (*Chairman.*) Will you explain what is American writing?—I mean to say, when you come to look at it you could not compel them on the strength of that letter. The promise was denied by the head of the Exhibit Department, the general head of which repudiated the action of his subordinate who had given this promise; there was a good deal of friction at the time, and finally the British Commission had to pay for the building because the exhibit was on its way and everything was arranged. The promise that was given to me was that they were going to erect a special separate building for other purposes, and they would give us part of the space; and it was on the distinct understanding that this space was given to us that this exhibit was sent. As a matter of fact, they quibbled; they said, "Space—we will give you space on the grounds"; but we required covered space, and they said that was not in the letter; that was the way they got out of it; but naturally an exhibit of that kind would be covered. We were given the space, but we had to erect our own building. I can give you another instance. That was in connection with motive power. One of our exhibitors agreed to exhibit conditionally on getting his motive power free of charge, or, if not free of charge (I do not recollect at this moment exactly which it was) at a considerable reducton in price. This concession was promised on con-

dition that it should be kept secret so as to form no precedent for other exhibitors. At the time of settling up, the promise was denied, but as I had this time taken precautions I was able to produce at the proper moment the necessary evidence of the promise, and so we got our own way in the matter.

2414. (*Mr. Algernon Law.*) We did not pay for it?—No, I think that was adjusted.

2415. (*Sir Isidore Spielmann.*) Had you any other difficulty that you would wish the Committee to know of?—With the American authorities?

2416. Yes, the exhibition authorities?—I do not recollect any at this moment. I was not quite prepared for that question.

2417. You are familiar with the installations; you saw all the exhibits installed both at Paris and St. Louis?—Yes.

2418. Do you consider the division of exhibits into groups and departments and shown in different buildings, each nation having space allotted to it in each building, is the most suitable arrangement for a national display?—Before I reply to that question may I mention in reply to your former question another thing which happened with the General Transport Service Company? They came to us when they were unable to locate the position of the exhibits, they got mixed up about the buildings at the time of the installation. They came to me and asked if I would give them some rough indication, as I knew the nature of the exhibits, of where they were to be shown in the various buildings. I said I would give them that information if it would assist them, but I gave it to them on the understanding that I should not be responsible for any error, because until we had the bills of lading I could not tell exactly; but I gave them an indication sufficient for them. They made mistakes; they did not follow my instructions; as a matter of fact they sent the cases to the wrong buildings, and then sent us an extra bill for the re-transport from the wrong building to the right one.

2419. (*Mr. Algernon Law.*) Did we pay?—No, we won that.

2420. (*Sir Isidore Spielmann.*) Now will you answer my previous question?—I do not think the sub-division into departments makes an effective national display. At Paris they divided exhibits into classes which were sub-divisions of departments and groups. There were departments, groups and classes. They abandoned the sub-division of the classes as being too minute, and adhered to groups, and the groups were shown in one building, which constituted the department. The result is that a nation is distributed all over the ground, and is in a way dwarfed by the country which is giving the exhibition, which always has about 40 per cent. of the space. Also you have at the outset to state the amount of space you want, and to arrange for it, and it may happen that some of the exhibitors drop out, and you do not desire the space or cannot fill it adequately, or others may come in, and you may require more space than you originally stipulated for. There is no elasticity in arrangements of that kind. If you have one national space you can make good the deficiency of one department by a more imposing exhibit in another department, and from a national point of view I think it is better to have it all together. In fact, to have a selection of typical exhibits, a sort of museum.

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2421. You have said that you think that Royal Commissions are unsatisfactory for the purpose of organising the British sections. Would you suggest that the London Chamber of Commerce should organise British sections?—No, I would not.

2422. What alternative would you suggest? How is it to be done?—To organise an industrial exhibit?

2423. To undertake the formation of an entire British section?—As regards the industrial section I would have leading manufacturers, representative men, form themselves into committees.

2424. But how are they to be brought together?—They would meet at some central place, England is a small place, they can travel very quickly from one part of the country to another; you might have some from Bradford, some from Leeds, and so on.

2425. Do you suggest that that should be done under a Government Department?—No.

2426. Who is to take the direction?—I say that these committees are each independent for each group of manufacturers, each class of manufacturers. Let us take, for instance, the woollen trade, you might have a committee for that.

2427. Who would form the committee?—They would form themselves from the Chambers of Commerce or from industrials who are interested in exhibitions. When you find that people are willing to exhibit, that there is a desire on their part to do so, then you can appoint your Commissioner or official, who will be the central authority to whom to apply. He would be the channel of communication with the foreign country.

2428. (*Chairman.*) Surely somebody must start the thing?—You might have a permanent official, say, of the Board of Trade, who would be entrusted with the task of circularising the manufacturers to acquaint them with the fact that the exhibition was to be held, but whose functions at the time would be strictly limited to making known the exhibition and not to proselytising.

2429. (*Sir Isidore Spielmann.*) If you were an industrial firm would you participate in an exhibition after your experience?—I think, as I said, I would if I were a small firm and wanted to get known. I would, if it were not too expensive, participate in an international exhibition, but if I were an old-established firm I would not. I would also participate in special exhibitions.

2430. (*Chairman.*) How did Messrs. Baker come to have 9,000 feet out of the 14,000; did they ask for it?—They had a very large exhibit, an immense exhibit.

2431. Had they any difficulty in getting that 9,000 feet?—No, I do not think so, because there was nobody else to fill it.

The Lord Justice Fletcher Moulton, F.R.S., called and examined.

2432. Would you kindly say what your experience with exhibitions has been?—I was a member of the Council of the Society of Arts during the years when it was concerned with the Chicago Exhibition. You will remember that the British Commission for the Chicago Exhibition was the Council of the Society of Arts.

2433. They managed that exhibition?—Yes. As one of the Commission I went out to the exhibition, and stayed there for three weeks in charge.

2434. You got to know that thoroughly?—Yes. Then in 1900 I was one of the Superior Jury at the Paris Exhibition, and in connection therewith I had before me all the disputes or difficulties that arose in giving the prizes. They were not abnormally numerous, for I think the French Bureau treated all foreign exhibitors very well. But they were considerable in number and sometimes rather difficult.

2435. Yours was the court of appeal practically from all the other juries?—Yes.

2436. Are there any other exhibitions with which you have had to deal?—No.

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2437. Have you anything you would like to say about the effect of exhibitions upon the manufacturing and exporting trades of this country, British arts and the general commercial relations between the countries concerned?—My opinion with regard to that subject must be looked upon as the opinion of a member of the public rather than as coming from the side of the exhibitors, but the impression that has been made upon my mind by both these exhibitions, as well as by my attendance at prior exhibitions like those that were held in France in 1889 and 1878, is that an important international exhibition is an opportunity that no country in the position of Great Britain ought to miss of keeping up its international, and more especially its commercial prestige in the eyes of the world. I do not think that the cost to which it is put is seriously to be considered as compared with the injury it will do its status in the world by making a mean appearance on occasions of that kind; but I wish it to be under-

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stood that my remarks apply only to what I call important international exhibitions. A town in starting an exhibition may have for its main object the bringing to that town of a large number of visitors and raising the status and importance of the town in the eyes of the world. I do not think that a great nation ought lightly to fall in with a plan of that kind, but in the case of truly international exhibitions, where the effort is a national one, we ought always to be well represented.

2438. I gather you prefer to make your observations from a general point of view rather than from the point of view of particular industries. If you can, will you tell us about the particular industries that have chiefly benefited by exhibitions?—I think that it would be difficult to name any class of industry that would not be benefited by appearing well at these great exhibitions. The very miscellaneous character of the exhibits at the Paris Exhibition in 1900 which came from Great Britain gave me a good opportunity of forming an opinion upon the points. They were of the most varied kind, from an effort on the part of a well-known English firm in the strong-room line, where the door of a strong room was, I believe, capable of withstanding a shot from a fairly powerful modern gun, down to such things as exhibits of mustard and starch from our English firms. I think that in a big exhibition the people who attend are of so varied a character that there is a fair chance of exhibits of real excellence, skilfully arranged, making an impression in almost all industries. I may say that my experience in that exhibition led me to think that very great care is exercised by the juries in examining all the exhibits, and that the prizes that are given, (always allowing for a certain bias in favour of well-known names) do really indicate excellence, and are recognised as so doing.

2439. In your opinion do you think there is much to be said *per contra*, do you know of interests adversely affected in any particular industries?—That is a little difficult to answer. I certainly think that the effect of an exhibition in a foreign country is very often to wake up that country and to educate it commercially to an important extent. So far, therefore, as tending to make efficient rivals, I think an exhibition may operate unfavourably in some industries if those industries are not sufficiently progressive to keep ahead of the world. I dare say that if an industry is sluggish and maintains its position mainly by the fact that it inherits a good tradition, international exhibitions may make its competitors more formidable, but I do not think that an exhibition does any injury to industries that are themselves active.

2440. In another and more direct way do you think injury has resulted from copying the exhibits at exhibitions; does that come within your knowledge?—That is what I was thinking of in giving my last answer. I think the new models, the better methods that are put before the world in these exhibits, do educate the manufacturers that see them, particularly persons directly concerned with the trade; but, on the other hand, any marked superiority that is evidenced by the exhibits has a direct effect on the customers. I think that is probably much more valuable than the indirect assistance that is given to their rivals. Moreover, I do not believe that any industry can permanently keep its place simply by trusting to its excellent productions not being copied. The very fact that it seeks success means that it is distributing its best articles all over the world, and therefore exposing itself to the danger of being copied, and in an exhibition I think it exposes itself to that danger in the most favourable way for itself, because it is under circumstances where it is likely to reap a good return in the way of customers.

2441. That being so, do you think that his Majesty's Government is warranted in giving grants to organise British exhibits for the future, or do you think that private enterprise should be relied upon?—I think that the Government ought to take this in hand for two reasons: first, that it is of great importance to the country that it should be done; and, secondly, that it is a serious injury to the country if it is done badly, and although I think that in carrying it out Government must to a large extent act through private persons, I also think that the authority which Government gives by being the head of the organisation greatly strengthens the hands of those who wish to do it well. Among other things it puts them into a stronger position to select and reject. I do not think that any private organisation will in the long run attain so high an excellence as an organisation in which not only the nominal head, but to a certain extent the effective head, has the authority of Government.

2442. You have had experience of both. At Chicago you say it was mainly the Society of Arts Commission and in Paris it was the direct Royal Commission?—It was so. Of course, the Society of Arts had the support of Government, but the council of the Society of Arts was at that time, and I believe still is, a very exceptional body, and if it was part of its acknowledged duties to attend to exhibitions, I am not quite sure that influences would not be brought to bear so as to alter to some extent the character of the members of that council. They are now chosen entirely on account of their knowledge and practical interest in arts and sciences, and, as I said, they are a very exceptional body. Such a body can be used once for a purpose so different without altering, or running the risk of altering, its constitution, but I doubt very much whether you could calculate on its remaining the same if the management of international exhibitions was one of its recognised functions.

2443. I gather you rather prefer the direct Royal Commission with Government control?—I think it ought to be the central authority.

2444. Assuming that is so, and that public money is to be granted, would you make it a condition that there should be plenty of people coming forward to exhibit before the Government agrees to have a Commission or advance money?—I think that the Government acting by itself is helpless; it is incapable of getting together a good exhibit unless it excites a large amount of public enthusiasm and gets a large amount of public support, and I do not think that the official element can do this. The official element should guide and organise the efforts of the individual persons who assist, and it should have power of control, but I do not think that official action by itself is at all sufficient or at all of the nature to make a successful exhibit. It is far too formal; its tendency is to do everything in a cut and dried fashion. There is very little initiative in it, and if it is too prominent in the working of the Commission, I think you will find that the response will generally be poor. It has a most important function in controlling the organisation and giving it authority, but the very first thing it should do is to get the volunteers.

2445. To get commercial members?—Yes.

2446. Did you in Paris or Chicago come across the German and the French methods of organisation of these Commissions at all?—I came across the German and French exhibits, and they were very admirable indeed.

2447. But not the methods?—No, I had nothing to do with the methods. Germany has taken the view that it is a matter of national importance that it should maintain its prestige at these exhibitions. German officialdom would work better, I think, than English officials would, and at the same time I think that Germany has no difficulty whatever in getting abundant support from the private manufacturers. It is a country that is rising commercially and very eager to rise, whereas the tendency of the English commercial community is that it is rather too much inclined to be satisfied with what is, and is not very eager to do anything that it thinks will produce innovations.

2448. You do not think in this country the German methods of strict organisation and choice by Government officials would be liked?—I am quite sure it would fail. Ultimately the effect of joining in an exhibition is that private individuals have to make great sacrifices pecuniarily, I will not say without hope of return, but certainly to a large extent for the purpose of the credit and reputation of their country. You would not get men to make those sacrifices in England if the matter was done in a strictly official way.

2449. You do not suppose that the State or the Royal Commission should pay all the expenses of an exhibitor—that is, for the freight of his goods, for space, and so on?—I do not think it should, because if it did the chance of an invaluable advertisement being obtained gratis would lead to efforts being made in all possible directions to get particular firms placed among those chosen to exhibit; and what is more, many of the most effective exhibits have been furnished by rising firms who have thus, by the excellence of their work, stepped into the rank of acknowledged firms. It would be quite impossible for any official organisation to ascer-

tain the existence of, or the merits of, firms of that kind not widely known; they would be almost compelled to take commercial reputation as it exists; therefore I do not think that it is advisable to make exhibits dependent upon Government so far as the expense of the exhibits is concerned. On the other hand, I think that the expense of the machinery of getting together the exhibits, and perhaps in certain cases the expenses necessarily associated with the arrangement of the exhibit, might well and safely be paid by Government. I will give you an example of this. Take the case of art. I think that England has gained as much by the art exhibits as by any other part of the British exhibits in these exhibitions. There must necessarily be expenses in carrying the pictures and other works of art and insuring them. Expenses of that type might judiciously be borne by the Government. On the other hand, take the case of an enterprising firm that fixes up, we will say, a model of its works, or sends over some big piece of machinery which is a *tour de force*, and which it wishes the world to look at. It would be impossible for the Government to pay for that, because it could not allow a like privilege to everybody, and it would be most invidious if it selected those to whom it should allow it; besides which, the financial burden would be too great.

2450. There is another expense I should like to ask you about, that is the large pavilions which we have had at some of the last exhibitions; at Paris I dare say you remember the pavilion that was there. Do you think that is a *sine quâ non* or a desirable thing to have at exhibitions at a great expense?—I do not think any money was better spent than on the English Pavilion in 1900, or on Victoria House in the Chicago Exhibition. They were objects of great admiration, and they gave a *cachet* to the total British exhibits which, I think, was obtained very economically; but of course in all these matters you cannot lay down a general principle, because the fact that they have been successful in the past, by reason of being so striking and novel, may be a good reason why you should not follow on the same lines the next time. I ought to say that in my opinion the ideal machinery for international exhibitions is one where the experience of the past is preserved and utilised, but the effort is recognised as a new one, which is to be guided by its special circumstances, and very largely influenced in its form by those who come fresh to take part in that particular exhibition. What you want to keep from the previous exhibitions is not a hard and fast method of forming your exhibits, but the experience of how best to carry out what you determine on.

2451. That is very interesting; you speak of the experience of the past being preserved; in that did you allude to the desirability of keeping continuity of organisation, that you should have a small department, or two or three people?—Yes, continuity of organisation so that the experience acquired should be preserved and utilised, and that you may not waste valuable time in fumbling about seeing what is the best way to begin. In anything that is necessarily so elaborate as an exhibition, although the actual appearance of the exhibits may be as different as possible, there is underneath the surface a vast amount of business in bringing it about which must have a permanent method if it is to be done well. For preserving the memory of the permanent method I think it is most important there should be an organisation that is kept on from one exhibition to the next. Of course, it will be to a certain extent the drudge and not the master of the next one; it will preserve the tradition of how effectively and quickly to carry out whatever is proposed to be done, but it does not at all follow that this organisation will consist of people who will take a prominent part in connection with the new exhibition, although they will take the labouring oar in carrying it out. It is so important that each exhibition should have a freshness and individuality.

2452. You were on the superior jury of awards. Are you satisfied with the present system of awards, or would you modify it or abolish awards altogether, as has been suggested by one or two of our witnesses?—I should leave it as it is at present. I think that no good exhibit gets overlooked. It is too much to expect from any body of jurors that they should not be to a certain extent overawed by a well-known name, and therefore a great firm may get awards a little beyond its merit, but on the whole I think that the system of awards is extremely valuable; and I think without this power of getting recognition, of getting distinction by the excellence of their exhibits, you would find the interest in exhibitions on the part of exhibitors fall off very much. I think the jurors try to be fair, with the one exception, that they rather lean towards taking the view—and it is not at all an unreasonable view—that there are some firms whom it would be a distinct censure to pass over. I remember a firm coming to me and pointing out that they had only got the gold medal and they wanted a *diplôme d'honneur*. They simply said, "We cannot afford to have a gold medal; we have been the head of the trade for so many years, and we cannot take an award which is not the highest."

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2453. What did you do?—I am very glad to say that I was able to get them the *diplôme d'honneur*. I went through their exhibit very carefully, and I saw the head of the French Bureau and pointed out that in point of excellence they had entirely kept up their position, and that they really merited it. There was a good deal of opposition, because the judges had given the full number of *diplômes d'honneur* in that class that they had intended to give, but the case was a good one and they gave it. That illustrates what I mean, that there are some firms to pass over whom would be almost a censure.

2454. Therefore it is rather difficult for new firms to get proper recognition?—No, they get adequate recognition, but I think the old firms get a little over-recognition, that is the danger; otherwise the awards are given fairly. I think there are very few awards that ought to be given that are not. The error rather is that more awards are given than strictly need be.

2455. (*Sir Isidore Spielmann.*) You said just now that a firm wanted the *diplôme d'honneur* because they could not afford to take a gold medal, and the reason they had not had it was, I think, because the number of *diplômes d'honneur* which the jurors had intended to apportion had already been allotted?—Yes.

2456. Is that not rather an unfair way of dealing with the awards? This firm may have been entitled to the *diplôme d'honneur*, but simply because the jury had allotted the number at their disposal that they were giving, this firm had to put up with a less good award?—I think that the jury went on this principle: a *diplôme d'honneur* must be an exceptional thing, therefore we ought not to give more than, we will say, six. I think it was a genuine error that the firm in question were not put among that six. The exhibit was of a character that was a somewhat modest one—it turned more on the quality of the things than on anything that was very striking to the eye—and when I put to them plainly that they ought to have included that exhibit in the first six, the view that the jury took was, "We may not take away any *diplôme d'honneur*, but as you have shown that there is a mistake, and that this ought to be among the first six, we will give an extra one." I do not think that was unfair, because you are justified in restricting the higher awards to a small number, because you mean them to point to an excellence that is far beyond the average of the trade, and of course you cannot have everybody far beyond the average.

2457. Are you of opinion that the Government grants to these large international exhibitions are sufficient?—The one to the French Exhibition was made sufficient in the way that it was very sparingly applied, but I confess that I think it might with advantage have been more liberally dealt with. I think there is a tendency to starve them.

2458. I do not remember how it was at Chicago, but at Paris and at St. Louis comparatively small grants were at first given, and then, by a great deal of effort those grants were subsequently increased?—If the Government were to take the view that I have enunciated they would have to increase their grants considerably; it would amount to accepting this as a department of their work, and as they would have accepted a greater responsibility than they have done in the past I should expect them to increase their grants, though not to a larger extent than would be necessary to defray the cost of organisation, and such portions of the necessary expenses as it was thought advisable from time to time to undertake. That would, however, amount to considerably more than they have generally given.

2459. May I ask your view as to collective exhibits; do you approve of firms exhibiting collectively?—I think that the Commission ought to be delighted when members put their private interests in the background sufficiently to unite to make an important national

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collective exhibit, but I should leave that to the spontaneous consent of the trade. It would be going too far to impose the condition that the exhibits must be collective; it would tend to stop a large number of firms from taking part in the exhibition, but I think the Commission ought to encourage in every way an exhibit which shows the status of the national industry rather than particular work of a certain firm.

2460. And in the event of collective exhibits being formed by the Commission. I suppose the expenses incurred in forming them would have to come out of the grant?—Certainly, I think that those would be fairly met and wisely met by Government; and it would, of course, have a correspondingly larger authority to regulate those exhibits.

2461. On the whole, I think you say you consider the interests of British exhibitors are well protected by the Royal Commission?—Yes. My idea is a Royal Commission, availing itself of the nucleus of permanent officials of which I have spoken, but associating with itself, either as members of the Commission or as advisory and executive bodies, private individuals in the various trades.

2462. Those exhibitions which have not been run by Royal Commissions, especially the minor exhibitions, are usually undertaken by the London Chamber of Commerce; may I ask your opinion of the London Chamber of Commerce undertaking such work?—I think that the Chambers of Commerce are far too loose aggregates for serious work of this kind; a man can get a very considerable position in a Chamber of Commerce simply because he chooses to take the time to attend, and there is not enough serious work done by the Chambers of Commerce to make the best men give adequate time to them. I should not accept, if I were advising a Royal Commission, the co-operation of such bodies as such. The Commission might get their advice perhaps on special points, but they should associate themselves directly with persons specially selected for their fitness, who will give their time and their influence and their authority to assist the exhibit.

2463. I asked you the question because we hear of a Brussels Exhibition in 1910 which is now in process of being organised. It is in its first stages. We hear that the London Chamber of Commerce has undertaken to organise the British Section for that. How the London Chamber of Commerce came to be invited I do not know. May I ask your opinion whether you think it is advisable that British interests should be left in their hands?—I think it is extremely inadvisable. There may be one or two Chambers of Commerce that take their work so seriously that you have, as you have in municipal bodies, persons whose time is valuable and whose experience is great giving serious work regularly to their duties in connection with such Chambers of Commerce, but that is not typical of English Chambers of Commerce. These Chambers have been brought into existence by a process of imitation of Chambers of Commerce that exist abroad. They are a new introduction, and they have not got hold of the commercial community sufficiently to make them suitable bodies for serious work of this kind.

2464. (*Mr. Malcolm Ramsay.*) If I understand rightly, you advocate the expenditure of public money on participation in exhibitions mainly on the ground of the national advertisement?—Yes, I think an advertisement is national that aids the national industry, and that is made up of the totality of the interests of the firms in the country.

2465. You are thinking of the collective point of view mainly?—I am.

2466. Would you say that such expenditure, so far as it represents the subsidising of an individual firm, is not quite so legitimate?—I think the right way of subsidising the individual firm is by bearing a certain class of necessary expenditure. I do not think you ought to subsidise the individual firm (apart from exceptional cases) in a way which would influence its exhibits. It ought itself to bear the cost of the choice of its exhibits, except so far as Government facilitates it by bearing certain definite necessary expenses.

2467. Is it your experience, or your opinion, that the majority of manufacturers who exhibit are induced to do so from patriotic motives rather than from consideration of the direct benefit which will accrue to them?—I think that both types of motive are present, and effectively present. I do think that when they are properly approached, the desire not only to increase the renown of the firm, but also to make England show up well, influences them.

2468. I understand you would not think it fair to the exhibitors to ask them to pay, for example, a *pro-rata* share of the organisation expenses?—I do not think it would be wise. It would stunt the exhibit, and I think the money that would be laid out in that way by the Government would be amply repaid by the general gain to the national industries.

2469. Turning to another point, you are quite clear that the money which has been given lately—for instance, taking the grants to Paris, which was over £100,000, and to St. Louis—are insufficient?—If I am right, the administration of that £100,000 was so careful that it was not all spent.

2470. I think they spent £98,000 or £99,000?—I thought £30,000 came back.

2471. Something like that; I think the grant was £125,000?—I do not know enough of the necessary expenses of an exhibition to say whether any particular figure is or is not enough, but I do not think that the assistance that was given to the English exhibitors at the Paris Exhibition exceeded on the side of liberality.

2472. How often, in your opinion, should the Government participate?—That ought to be very carefully considered. I should not fix it by number of years, but I should fix it by the gravity of the occasion. That is a matter that the Government must decide, and it should decide it on the principle that I have hinted at—that when there is a great international effort England should appear well.

2473. Do you consider that the attraction of exhibitions grows stale by repetition?—No, I do not. If they are made too common no doubt the attraction will fall off. Before 1900 the last great effort I think was the Chicago one, and the one of 1889.

2474. We did not participate officially in 1889, I think?—I do not think we did. I do not think that these international exhibitions have been too frequent. You must remember that the St. Louis Exhibition was an exhibition in America, and you must take the interval between the St. Louis and the one before it so far as America is concerned—something like 13 years—and an exhibition of that kind every 13 years would not make them lose their attraction. I believe the attendance at the St. Louis Exhibition showed that it did not lose its attraction. Is that not so?

2475. I was thinking rather of the financial burden which frequent participation might involve on the tax-payer?—I think that the too frequent participation will be checked by the principle that it must be a serious international effort.

2476. (*Mr. Harris.*) Reverting for one moment to the case you mentioned, of a firm not being satisfied with a gold medal, do you think there is any danger that in similar circumstances a firm, we will say a foreign firm who had a poor exhibit, might bully the jury into giving them a higher award on the ground of their general reputation?—No jurors are perfect, but I think the awards were given fairly in the 1900 Exhibition, and I must say that the jurors took immense pains about giving them. The French probably had somewhat more awards than they ought to have had, but I do not think the foreigners had any less than they merited. There was no doubt a certain liberality towards the French exhibitors, who certainly spent immense sums of money and made most remarkable and attractive exhibits. The worst criticism that could with justice be made is that there was perhaps an undue liberality towards the French, but no lack of liberality towards the foreigners.

2477. Would you not say that that undue liberality towards the nation where the exhibition was held was damaging to the prestige or the trade of the others?—No. It is only what must naturally occur in such circumstances, and I do not think that it would do any damage.

2478. You would say that generally that is your opinion as regards all exhibitions of that class, in America as well—St. Louis or Chicago, we will say?—I do not know about St. Louis, but I think it was so at Chicago, and that in the great exhibitions I should expect it to be so. I have no experience of the smaller exhibitions. I do not know that public opinion would be equally strong or that the people from whom

the juries would be drawn would be of equally high class in the little exhibitions—but in the big ones I should expect it, and I do not think you will find that I should be disappointed.

2479. (*Mr. Algernon Law.*) There seems to be a great reluctance on the part of great British firms to take part in international exhibitions; the result would seem to be that there was not an adequate representation of this country. Do you think, under those circumstances, we ought to embark in a participation in an international exhibition?—That is because the participation has been organised in a somewhat scratch manner. I think if it was taken in time, and there was a Government countenance to it, and yet organised private work in bringing it about, the reluctance or the disinclination you speak of would be very much less felt.

2480. In some cases the expense to which the exhibitors have been put is something enormous; in one case we know of £3,000 having been spent, and the exhibitor found no commercial result whatever?—What sort of trade was it?

2481. Locomotives?—That is just the type of exhibit that was in my mind when I was answering the question as to whether Government should defray the expense of an exhibit; there you are fishing for whales, and if you secure orders they are orders bringing in very, very large sums, and you can afford to spend considerable sums on your bait even though you sometimes have a blank day at fishing.

2482. So that for that a great length of time is required, and you think the Government ought to decide at an early stage whether they intend to take part or not, in order to prepare the way beforehand?—Yes. If, when the Government thought the exhibition of sufficient importance, there was at a sufficiently early stage an official organisation put to work to ascertain what support they could get in the way of exhibits from private exhibitors or from the collective trades, and there was an assurance that by that means the applications for space would be made soon enough, and with a definite idea of what the extent of the exhibit would be, it would make people think much more seriously of taking part.

2483. (*Mr. Wilson Fox.*) Following up that line of argument, the difficulty one has heard from the witnesses about a large representative commercial exhibit is this: that some firms have no interest whatsoever in showing at a foreign exhibition; they do not want to push an export trade, and they are sufficiently advertised here. It is the difficulty of getting the class of firm to exhibit which would be essential perhaps if the Government wished to have a really representative commercial exhibit, which has been presented to us. If the Government do not pay any of their direct expenses (I am not at all suggesting they should) it has been put to us it is extremely difficult to have a representative exhibit of that class of firm?—I think that Government should contemplate that there are certain things which are important in an almost purely national way, and that in that case a large proportion, or even the total, of the expenses of the exhibit might be borne by Government. But that should be the exception. It should be, because the exhibit was arranged for purely national reasons. One might imagine an exhibit of the minerals of the country which would not bear at all upon the personal interests of any private firms, but it might be both valuable and interesting as showing the state of science of the country, and might also be of great geological and mineralogical interest to the general scientific world. In a case like that I think that Government might very well bear the expense. Take another case: I remember at the 1900 exhibition all the apparatus which Ampere and other early electricians had used in demonstrating the great laws of electricity, the original instruments, were there. I rather think in the English exhibit the original Newtonian telescope, the instruments used by Faraday, the instruments by which he discovered induction by electricity, were shown on account of their very great historical interest. Of course exhibits of that kind might well be at the expense of Government, but it should not be the rule.

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2484. I was rather thinking to take two trades like the textile trade on one side and the glass and china trade on the other. Say Messrs. Doulton sent a very attractive exhibit. A large number of those things may be sold directly there. They are attractive, and they get a good many orders, but textiles are not so attractive to look at, and they are not likely to get many direct orders and not many indirect orders?—I conclude you are not in the textile industry, because you will find that people will stand outside a textile exhibit and say, "That is a beautiful cloth." To the eye of the expert a number of these exhibits are really very attractive.

2485. I can understand there are attractive textiles, but I can understand there are very unattractive textiles, or, at least, textiles which are not so attractive as the china and glass, but if the Government wanted to get up a big representative textile exhibit it has been found hitherto that the large textile people have not shown very largely?—You mean that Horrocks' long cloth would not make an exhibit. If there are cases where they are desirous of it, it is possible that Government might go some way to meet industries of that kind. I think the grant ought to be large enough for them to do it, but these cases ought to be by way of exception.

2486. You rather crystallised what was in our minds when you said a textile exhibit would be of interest to experts. My point is that Doulton's exhibit would be interesting to all the world?—There is no doubt that an exhibit like Doulton's ought to be much more completely at the expense of the exhibiting firm than one which was less for their private purpose and more for national purposes.

2487. (*Chairman.*) Is there anything you would like to add?—No.

NINTH DAY.

Thursday, 14*th February* 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman.*)
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Malcolm Ramsay, C.B.
Sir Isidore Spielmann.

Mr. Walter Mappin and Mr. Robert James Gibson, called; and Examined.

2488. (*Chairman.*) (*To Mr. Mappin.*) I understand you are a director of the firm of Mappin and Webb, who are, of course, very well known as jewellers, silversmiths, and so on?—(*Mr. Mappin.*) Yes; but I have asked Mr. Gibson to accompany me, as he has had personal experience of exhibition work, and I thought perhaps he would be better able to answer many of your questions.

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2489. (*To Mr. Gibson.*) I understand that you are also a director of the firm of Mappin and Webb?—(*Mr. Gibson.*) Yes.

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2490. I think your firm has exhibited at several great international exhibitions?—Yes. We have exhibited at Paris and Chicago, and we exhibited also in the Military Exhibition, which would not come under the head of international exhibitions, I suppose. It is in the capacity of a representative of Mappin and Webb that I am now speaking, but indirectly I was connected with the previous Paris Exhibition.

2491. That is, you have been connected both with the Paris Exhibition of 1889, and with the Paris Exhibition of 1900?—Yes.

2492. Your firm has exhibited silverware, electroplate, cutlery, and so on?—Yes. Amongst our exhibits have been dressing bags, leather goods, and jewellery.

4291. I understand that you have formed connexions with foreign countries, which you could attribute to your goods having been exhibited at those exhibitions?—Yes. We have come in contact with foreigners whom I do not think we would have come in contact with had we not exhibited, and they have remained as customers for some little time afterwards.

2494. Have you ever experienced any disadvantage from exhibiting, either by having your goods copied, or in any other way?—It is difficult to answer that question. I daresay our goods have been copied—that is only natural. If there is any improvement that we see in other sections we naturally copy them, and I daresay the same thing has been done to us.

2495. But you do not know that you have suffered any damage by it?—I do not think we have.

2496. Do you consider that any value has been attached to the awards which you have got from exhibitions?—Yes, I do. I consider that the public think a great deal of awards that have been granted at international exhibitions. You see, you are in competition with all the best manufacturers of your country, and naturally, if you have an award of merit, it only goes to show that you are first in the field in that line of manufacture in which you get the award.

2497. Have you ever been induced to buy from the British and foreign manufacturers through seeing their goods at the exhibition?—Yes, we have.

2498. Can you give us any special points in which you have derived instruction or knowledge from visiting exhibitions in connection with either manufactures or machinery?—These international exhibitions give us the opportunity of seeing the various improvements that have occurred in the past ten years—they are generally held, as you know, every ten years. They give one a chance of improving one's own machinery, and one's own mode of manufacture.

2499. You have not refrained from exhibiting since you have begun, have you?—No, we have not—that is, not in connection with international exhibitions.

2500. But I understand that you find that the expense of exhibiting is heavy?—Very much so. There do not seem to be any facilities thrown in the way of the English exhibitor to reduce or to minimise the cost of exhibiting.

2501. Are you referring now to the cost of space?—The cost of space, I suppose, is more or less governed by the country in which the exhibition is being held. I mean that there were no facilities—or at least we have not experienced them—from the British commissioners in the way of decorating and making a uniform exhibit which should represent England. Each of the exhibitors seemed to have all the responsibility thrown on their own shoulders, and, to put it roughly, they had to get out of it as best they could.

2502. You had to decorate your own exhibit and your own court, in fact?—Yes, from start to finish. In addition to that the assistance that was rendered from the Commission was not by any means up to date. Instead of the Commissioners sending to us messengers, and giving us the assistance we required in the way of admissions, and in reference to the queries that were raised by the French authorities especially, we had to run after the Commissioners and await their good time to get out of our difficulties.

2503. Are you referring now to the Paris Exhibition of 1900?—Yes. To give you an instance, as an exhibitor I did not get my pass to the exhibition, except a temporary one, until a fortnight after the exhibition had been opened; and I was obliged by this temporary pass to go out by the same gate, and if I wanted to go out at any other point of the exhibition I had to answer all sorts of questions, and very possibly could not get out there.

2504. You did not have the proper pass, in fact?—No. In the American section everything seemed to work very smoothly. If they wanted anything they telephoned to the Commissioner, there was a messenger boy sent down, and it was the Commissioner's messenger-boys who did the work for the exhibitors.

2505. Did you attribute that to want of organisation, or to any other reason?—I think that would be due to want of organisation; I could not attribute it to anything else.

2506. You found the English organisation, I suppose, willing to help you?—I think it was like the old saying, "The spirit was willing, but the flesh was weak." I do not know exactly whether they were overtaxed with work, or whether they had the proper assistance at their hands, but the fact remains that we did not receive it.

2507. Did you ever see the British Commissioner, Sir Herbert Jekyll?—Yes; but it was with difficulty that one could see him.

2508. I am sure you found him helpful when you saw him?—I am sorry to say I did not receive very much assistance from Colonel Jekyll. His assistant—I forget his name for the moment, but he was a tall gentleman—endeavoured to do all he could; but there were certain things which he could not do without the permission of Colonel Jekyll, and I think Colonel Jekyll was difficult to get at at times.

2509. Anyhow, you do not consider you were very well treated?—No. I think the general impression of the British exhibitors was the reverse of being satisfied.

2510. Can you give any suggestions as to improving the organisation?—I think the best suggestion one could make would be to follow on the lines of the American section.

2511. What do those lines consist of, shortly?—Briefly, they used to run after the exhibitors and do all they possibly could for them, rather than let the exhibitors run after them.

2512. Do you think that they were more commercial and less official, or what was the great difference?—I think that they were much more commercial; they had a commercial man on the staff.

2513. A man actually engaged in trade?—Yes. Ferdinand Peck, I think, was the head of the American section. He was a big man in Chicago and in the financial world, and everything seemed to move with much smoothness.

2514. But he did not run after his compatriots did he?—No; but he had his assistants to run after them, and we had no one.

2515. Would you be in favour, then, of the whole thing being in the hands of commercial men?—Yes; I think we would be much better off then.

2516. Would you not have a Royal Commission?—I really do not understand what is meant by having a Royal Commission.

2517. Of course, a Royal Commission would confer dignity upon the governing body?—I think commercial men can show dignity sufficient.

2518. Do you think there would be dignity enough without their being a Royal Commission?—I should think so.

2519. Do you think that in this country it would be easy to get a committee of commercial men?—I think a mingling of the two would go very well.

2520. Do you attach any importance to there being as a small nucleus a permanent body who would have experience from one exhibition to another?—Yes, I think that would be an advantage.

2521. You have only had experience, I think you have said, at Paris and Chicago?—Personally I have only had experience at Paris and Chicago.

2522. Let us go back a little, and take Chicago. What were your criticisms on the management at Chicago?—My brother had more to do with that than I had in Chicago. It was run fairly well in Chicago, much better than in Paris.

2523. Do you think it was better than in Paris?—I do think so. Probably the facilities that were given in Chicago were greater than those that were given

in Paris. The situation, for instance, of the exhibition was more adaptable—it was in a circle.

2524. I remember that; I was there, and saw it?—At Paris, on the other hand, it was a very long, endless sort of affair, which was scattered about too much—that is, putting the Paris Exhibition in comparison with the Chicago Exhibition.

2525. I think at Chicago the nations were kept together more, were they not?—Yes.

2526. Instead of putting the separate classes of exhibits together?—Yes.

2527. Do you prefer the national form of exhibiting?—I think so.

2528. But it is not so easy to compare the exhibit of one country with the exhibit of another country in that way, is it?—I should think it would be so.

2529. The general exhibits of one country could be compared with the general exhibits of another, but your goods would not be next to similar goods from France or Germany?—No; they would be next to our own country's goods.

2530. And, from that point of view, you prefer a national exhibit?—I think so.

2531. In spite of your experience, you are still inclined to exhibit at future international exhibitions, I gather?—Personally I think it is a good thing if we could have a little bit more assistance and a little bit less expense. I would be sorry to see international exhibitions cease.

2532. You would not like to see international exhibitions cease, and you would not like to see this country taking no part in them, I suppose?—I think it would be a great mistake for this country to take no part in them. After all, we are very much dependent upon foreign countries.

2533. I think you have told me that you attach importance to the awards which are given for your exhibits?—Yes.

2534. Have you anything to say about the manner of giving those awards? At Paris, for instance, was that satisfactory to your mind?—So far as I could see, it was fairly satisfactory.

2535. You got a high award there, I suppose?—We got fairly high awards.

2536. Did you get a gold medal or a *diplome d'honneur*?—We got two gold medals and three silver ones, I think.

2537. Do you think that the awards are an important part of the exhibit, and that you could not do away with them?—I think that they are quite necessary. Unfortunately, we have got to pay for the awards that we get, if they are gold medals; that is the most peculiar part of it.

2538. That is to say, you get a bronze medal, and you make it gold by paying for it?—Yes.

2539. That has been the case for some time, has it not?—Yes, I believe it has.

2540. Now, about the expenses. I suppose your transport expenses (including freight and duty) were not very heavy for your goods, were they?—They were fairly heavy.

2541. Do you think any part of that expense should have been paid for you?—I think we ought to have had better rates. I think that should have been arranged by the British Commissioners with the railway comanies.

2542. Are you speaking of the Paris Exhibition of 1900 now?—Yes.

2543. I suppose your goods pay very high rates on the railways?—Yes.

2544. They come under a high class, as far as I remember?—I do not think we got much of a reduction on any of the rates; it was pretty well the same as in ordinary cases.

2545. That is, you paid the ordinary commercial rates?—Yes.

2546. But you think for exhibitions the goods ought to pay less?—I certainly think so.

2547. It would not be easy in this country to do that, would it, if we had an international exhibition here, because the railways are not the property of the Government?—I think an arrangement could be come to with the railway companies.

2548. Even with our railway companies here?—Yes, I think so. I do not think they are so arbitrary that they would not make a special rate in the case of exhibitions.

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2549. I think you said that you thought the decoration was a great expense to exhibitors?—Yes. What principally struck me was the American section; and there were several sections which were done pretty much in the same style as the American section. The American Commission took the whole of the decoration upon themselves, and made it a uniform decoration outwardly, the inside decoration being done by the exhibitors. The moment you came to the American section you knew at once that it represented the United States; whereas when you walked into the English section you did not know whether you were in the English section or whether you were out of it, because everybody had their own idea, and it was "straggled." It seemed to me such a pity that the English people could not take it up in the same spirit as the other countries do, and make it represent England, so that the moment people went into the section they could say, "This is representative of England."

2550. Would you like the governing people—the Commission, or whatever it is—to take it out of the hands of the individual exhibitor?—I think it would work very much better that way.

2551. So that you might have one great scheme of decoration?—I think that would be very much better. Then the cost of the decorations could be equally divided up. By that means the cost of the decoration of the place would be very greatly reduced. If one in a private way takes several places and then gets different people to carry out their own ideas, it becomes much more expensive than if one carried out one general idea for the whole affair.

2552. Did you visit the British pavilion at Paris?—Yes, I did.

2553. Do you think that the cost of that was justified?—I do not think it was.

2554. You are aware, I presume, that it cost a very large sum?—I think it cost considerably more than it ought to. It was an Elizabethan structure, and they exhibited some very fine pictures there. I think there was more attention paid to the Elizabethan Pavilion in the way of the society functions than there was to the hard working exhibitors. I know I worked pretty hard in the section as a British exhibitor, but I do not think I can recollect, with the exception of once, I think, that I got an invitation to the British functions; and yet I was at almost every one of those given by the United States Commission.

2555. Here again you are giving us rather a criticism of the management of the functions, are you not?—I do not know what it was due to, but at any rate that is what happened.

2556. Of course, we want to hear what your experience was. The pavilion was very much admired was it not?—I think generally it was very much admired. Personally, I think it could have been very much nicer, but still that is only a matter of opinion.

2557. Do you remember the exhibition at Chicago?—I do not recollect the exhibition at Chicago. It is a long time since the Chicago Exhibition.

2558. Then I will not ask you about Chicago. Generally, I presume you would attach some importance to the social functions if they were properly administered?—Yes. I think there ought to be a certain number of social functions; I think that is essential.

2559. You say that the Americans had a good many; anyhow, they asked you to a good many?—Yes, the Americans had a fair number.

2560. (*Mr. Wilson Fox.*) As we know, your firm has got a world-wide reputation; having got into that position, do you attach as much importance to sending your exhibits to foreign exhibitions as you would if you were in a less prominent position in the eyes of the public?—Yes, I do. Take our name and what we are principally known for—Prince's plate. If we drop advertising Prince's plate, it would be dead, yet it is world-wide known. It is just the same in everything else.

2561. Do you look upon a foreign exhibition then as one means of maintaining your reputation?—Yes, it keeps our name constantly before the public of all countries.

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2562. Do you think that showing at exhibitions is as essential a method of maintaining your reputation as the ordinary mode of advertisement or employing travellers; or do you think that all three methods are useful?—I should think all three methods are useful. It would be difficult to discriminate between them.

2563. When you show at a foreign exhibition, do you do it more with an eye to your export trade—that is, with an eye to getting new clients abroad—or do you do it with a view of maintaining your reputation in England by means of the awards that you will get?—The first thought that comes into our mind is our home trade; that is what we depend upon. Secondly, we have got an eye to having foreign trade as well.

2564. But you could not say definitely that the result of the Chicago and the Paris Exhibitions was to get you new orders abroad in any foreign country, I suppose?—I think the object of exhibiting in Chicago was more or less to catch, if I might use the term, the American trade.

2565. I suppose there is a pretty keen competition in America?—Yes, there is. American goods are very expensive, as I think we all know, and Americans are very good customers if you can get them.

2566. But still you told Sir Alfred Bateman that you do consider it worth while to exhibit at these foreign exhibitions?—Yes, I do.

2567. Therefore, we come to the point that as far as you are concerned, what you want is good organisation?—Yes; I think the whole secret of success is organisation.

2568. I take it from what I have heard that in the exhibitions you have had to deal with, you have not been entirely satisfied with the organisation?—No, and I do not think I am alone in saying so.

2569. Let me take one point which must be an important one to you, and that is the allocation of space at a foreign exhibition. Have you been satisfied with the amount of space and also with the locality in which the space has been allotted for the British exhibits?—Yes, we have been fairly satisfied. With regard to the Paris Exhibition of 1900, we were rather disappointed to start with, and it was with some difficulty that I persuaded the British Commissioners to obtain for us new space. It was not really new space, because it was on the same spot, but we got additional room. The first space which they allotted us was a very bad one.

2570. But in the end you were favourably placed?—Yes, the position was very favourable.

2571. Is it your impression, having regard to the fact that you think the organisation is not up to the mark, that money is wasted in existing circumstances?—I should be rather inclined to think so.

2572. Do you think as regards the future that the management of an exhibition from the English point of view requires better organisation rather than more money from the Government?—It is very difficult to say.

2573. But you think there ought to be some Government support?—I am quite agreeable to there being Government support.

2574. In the way of organisation?—I think so.

2575. That is as regards the decoration of the British exhibits, if I rightly understand what you said?—Yes.

2576. And as regards getting proper space?—Yes.

2577. And as regards getting good terms with the railway companies for freight?—Yes.

2578. Now as regards the individual manufacturer, how much farther do you think we can go? Taking the Government point of view, what else do you think the Government could reasonably do? You would not ask the Government to pay for the preparation of your exhibit, would you?—No.

2579. Supposing the Government could get you good space in a favourable position, would you expect them to pay for that, or would you expect to do it yourself?—If we were charged for the space I should think the Government ought to pay for the decorations. They ought to subsidise to a certain extent—I do not say in a large way, but they ought to minimise the expense of exhibitors.

2580. How often do you think that a company of your standing would be prepared, without feeling it a great burden, to show at international exhibitions?—Providing international exhibitions were not too frequent—providing they were held, say, every seven to ten years—I should not suppose that the exhibitors would think it a hardship to exhibit at all those.

2581. But you would not be prepared to show at a big international exhibition, say, every three years?—I think that that time would be too short. You see, in three years there is not very great time for new developments; on the other hand, if certain exhibitors made a show at an exhibition this year, say, and three years hence there was another international exhibition, there is no reason why other firms, who may have made improvements, should not spring up and take the place of the ones who had shown at the previous exhibition.

2582. I want to find out how much the commercial men in this country could stand in the way of showing. We cannot expect them to be always sending valuable exhibits to exhibitions. I do not know whether you would take this view—that it might possibly end in deteriorating the standard of the exhibits if there were too many exhibitions, because firms would not go to the expense of making up very costly exhibits often?—I should think every five years would be a very good average. Earlier on I forgot to mention that we exhibited at Glasgow in the year following the Paris Exhibition of 1900. We went to Glasgow, and we had rather a bitter experience of Glasgow.

2583. Do you mean in the way of organisation?—Yes.

2584. Did you find that the Glasgow Exhibition was better organised than the exhibitions at Chicago and Paris?—We found in the Glasgow Exhibition that we could not sell any goods at all.

2585. (*Chairman.*) That you could not sell in Glasgow?—We were worse off in Glasgow than in Paris in that respect. That was the peculiar part of it.

2586. (*Mr. Wilson Fox.*) But you found the organisation better?—The organisation I think was better. It was very clanny.

2587. I suppose you looked round the other exhibits besides your own at Paris and Chicago?—Yes.

2588. What was your opinion of the British exhibits at those two exhibitions as compared with the foreign exhibits? Do you think they compared well or not—I mean were you proud of the British exhibits, or were you not proud of them?—I was not.

2589. You were not?—I was very disappointed.

2590. That is taking the British exhibits as a whole?—Yes.

2591. I am only trying to get at your opinion: taking the British exhibits as a whole you were disappointed in both cases?—Yes, I was. I think the best part of our exhibit was the machinery section; that was fairly good.

2592. I am speaking now entirely of the commercial side?—And you are taking the exhibition collectively?

2593. Yes?—I do not think it was up to the standard at which England might have been represented.

2594. Was it in quality or in quantity that you think we were behindhand?—I think in both.

2595. (*Mr. Harris.*) I think you said that in exhibiting abroad you looked chiefly to your home trade?—Yes, that is the first consideration.

2596. Do you think that that view is prevalent among manufacturers who exhibit?—I think it is, except probably in regard to machinery. Perhaps the makers of machinery look to foreign countries for large orders.

2597. Would you say that the value of the orders got by exhibiting justifies national expenditure on representation at foreign exhibitions—speaking from your own experience?—Yes, I would be inclined to say so.

2598. Do you not think that you, as manufacturers, can do better by not exhibiting at all, and by simply pushing your home trade here?—I should not like to say they could. I should be inclined to say no to that question.

2599. As regards exhibiting out of this country, would you draw any distinction between a Colonial exhibition and a foreign exhibition? I mean, do you think that you would gain more from an exhibition like the present New Zealand Exhibition than from an exhibition at Paris?—We would gain more from a Paris Exhibition.

2600. As regards awards, I think you observed that awards were given for the best goods?—Yes.

2601. We have had evidence here to show that the mere quality of the goods is not necessarily the first factor in an award, but that the standing of the firm is considered. We will suppose for a moment, what is—shall I say?—impossible, that a young firm was producing a better plate than your Prince's plate, and went into competition with you at an exhibition; do you consider that that firm would have a fair chance of beating you in the awards?—Yes, if they have got the proper judges.

2602. What do you mean by the proper judges?—If the judges were selected for awarding upon merit, then the people who produce the best article naturally would get the best award.

2603. Then you do not attach much importance to the idea that considerable marks are given for the standing of a firm, so that an old firm like yours always has a big handicap in its favour?—No, I do not. That may bear weight in the mind of the judge, but that entirely depends upon the judge.

2604. That is my point; does the judge give a fair award?—I think so as a rule; take, for instance, our case!

2605. (*Sir Isidore Spielmann.*) Were you invited to exhibit at the St. Louis Exhibition?—Yes, we were.

2606. Can you tell us why you did not exhibit?—It was too expensive. Our experience in going across to Chicago has remained so forcibly in our ledgers that we thought the best thing was to withdraw.

2607. Did the Commission for St. Louis offer to assist you in the matter of expenditure?—I do not remember, because I did not take up the question at all. We dropped it so soon as the notice was brought, and we did not go further into the matter.

2608. Had the prohibitive tariff of America anything to do with your refusal?—That would be the principal reason.

2609. Did you exhibit in Brussels in 1897?—No, we did not exhibit.

2610. Are you quite sure of that?—Yes.

2611. With respect to your space, are you satisfied with your neighbours as a rule at these exhibitions?—As a rule I have been.

2612. Would you rather have a firm representing your own industry next to you, or a totally different industry?—Personally, I would rather see one in our own business.

2613. We have had witnesses here who have told us that they have had placed next to them such exhibits as trousers-stretchers, and that that has acted rather in a disadvantageous manner to them; have you had any such experience?—I think I know the firm that you refer to. I should not like to have had a trousers-stretcher next to me.

2614. A neighbour of that sort would be harmful perhaps to the exhibit of an important firm?—I think it would be a very great objection.

2615. You have referred to two inconveniences which you suffered at the Paris Exhibition through, I think you said, the Chief Commissioner not being very accessible, and so forth; and you particularly alluded to the fact that you could not get passes?—Yes, that was the case.

2616. Is it not just possible that the exhibition administration was the cause of all those troubles?—I do not think so, and for this reason—if the United States were able to get their passes before the Exhibition had been opened and to distribute them amongst their exhibitors, why should not England have been quite as sharp? I think England ought to be as sharp as America.

2617. I am not defending the Commission, mind you; but the Commission may have been desirous of helping you in every possible way, yet if the exhibition authorities did not issue the passes at the right time, the Commission is not to be blamed. I was myself in Paris, and remember the incidents perfectly well. Do you not think it is possible that instead of the Commission being to blame, the exhibition authorities themselves were to blame?—I do not think so. I think it was entirely the fault of the English people. I have an illustration in another way. I was advised by the French authorities themselves to apply on behalf of one of our proprietors for the honour of *officier* of the Legion of Honour, the gentleman having been *chevalier* for some long time. The excuse the British people gave for not applying for it was on account of the representations in the French gutter Press of our late Queen. That was the reason which the English authorities gave for not putting forward the name of a gentleman who had done a good deal in French Exhibitions to receive the honour of *officier* of the Legion of Honour in place of remaining *chevalier*.

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2618. No doubt there were political influences at work about that time, but I myself employed a large number on the staff in the Arts section of the Paris Exhibition, and I know as a fact that the authorities were changing the nature of the passes every fortnight, and that I was greatly inconvenienced myself. As regards the special rates, are you sure that there were no special exhibition rates for transport in connection with the Paris Exhibition?—I think there was a slight reduction, but I do not think it was very material, as far as I can recollect.

2619. What is your opinion of collective exhibits? Would you, as a trader, be disposed to participate in collective exhibits with other firms of equal standing if you were invited to do so?—Do you mean to share the expense with other firms?

2620. To make one large exhibit of your best productions with similar firms, the expenses being borne in a great measure by the Commission?—I do not see how it could very well act.

2621. Would you rather be independent?—I think it is always much better to be so.

2622. And pay your own expenses?—Yes, up to a certain point; but I think we ought to be subsidised a little bit, as I have said before.

2623. (*Mr. Malcolm Ramsay.*) Would you tell us how you first get word of a coming exhibition?—We generally get it in the form of a printed communication from the commissioners, or whatever the body is.

2624. That may be rather late in the day, perhaps. Have you experienced any difficulty from getting late notice of a coming exhibition?—I cannot recall any difficulty in that way.

2625. Supposing there was an exhibition at which this Government was not going to be officially represented, whence would you get your information then?—I presume from the same source—the foreign authorities.

2626. In considering whether you will exhibit at an exhibition abroad, would you be much influenced by the consideration that the Government was not officially participating?—I do not quite follow that.

2627. For instance, in the Paris Exhibition of 1889 the British Government was not officially represented, whereas it was officially represented in 1900. For your purposes, would it make very much difference whether the Government was officially participating or not? In other words, would you have declined to go to Paris in 1889 on the ground that there was no official British participation?—I think it is better to have an official participation.

2628. Were you invited to go to Paris in 1889?—We were invited to go to Paris.

2629. And what did you do?—We were represented in 1889.

2630. That is a case where there was no official participation—I mean no Government grant?—Yes.

2631. So that the absence of a Government grant did not prevent you from exhibiting at Paris in 1889?—No. But that was just before my time, and I had very little to do with it.

2632. I gather from your answers to previous questions that, on the whole, you would be sorry if there were no international exhibitions at all?—Yes, I would.

2633. Would you regard it as a misfortune for your trade?—Yes, I think so.

2634. I suppose, when considering an invitation to exhibit, you are very much influenced by the country in which the exhibition is going to be held?—Yes.

2635. Would you consider it worth while to exhibit in the smaller capitals of Europe?—No, I should not.

2636. I think you said you did not go to Brussels?—That is so; we did not.

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2637. Then there was the Antwerp Exhibition in 1894?—We were not there.

2638. Would you think it worth while to go to Vienna?—I do not think so. There is too much for sale on the English market received from Vienna.

2639. Or Berlin?—Yes, I think it might be worth while to go to Berlin.

2640. Practically it comes to this, does it not, that the bigger the capital the greater the advantage?—The greater the attraction. My reason for not going to the smaller capitals of Europe is that you do not get the volume of people there, because there are not the attractions. If there are attractions in the city where the exhibition is held you will find a mass of people, and you will find accommodation for them, whereas you will not find that in the smaller capitals of Europe.

2641. I suppose you would think that if the Government was going to officially participate in exhibitions it is better to do it well or not at all?—Yes, I do think so.

2642. From your point of view you think exhibitions are an advantage?—Yes.

2643. Can you tell us whether you find manufacturers share that opinion generally? In other words, do you believe the trade generally shares your opinion?—I think that opinion is general.

2644. I presume there are some particular businesses which stand to gain a great deal more from exhibitions than others?—Yes, I should think so.

2645. As regards the expense, I gather from your previous answers that you attach a great deal more importance to having a proper organisation for the purpose of securing to you the maximum advantages than to being directly subsidised by the Government?—I think the principal thing in any case is the organisation, because that in itself minimises the cost.

2646. You would not expect the Government grant to be spent on anything else than the general organisation, would you? Would you not ask for direct grants to relieve you of expenses?—I think, as I said before, that if the exhibitors pay for the space the Commission ought to devote a substantial portion of the handsome amount that is granted to them to the decoration of the section. It is in any way a subsidy.

2647. I suppose you regard the exhibiting as an advertisement?—We certainly do.

2648. Therefore, I presume, you are willing to pay for that advertisement as you do for your own private advertisements?—Yes. Our internal decoration of the space that we are allotted is a very great expense to us, and if in addition to that we have to make our external decoration, that will be a still further expense.

2649. I suppose having to pay the cost of that would not necessarily deter you from exhibiting in Paris on a future occasion; you would not decline to exhibit in future, would you, on that ground?—No, I do not think we would.

2650. Is it the case that the cost of the space is not a very large item compared with the expenses which you would in any case incur?—No, the cost of the space is a small item.

2651. As a matter of fact, it is a pretty heavy expense even to go to Paris, I suppose?—It is.

2652. (*Mr. Wilson Fox.*) Arising out of that, would you prefer to pay for your own stand in which you show the goods, and to have the control of the architecture of it, or would you wish that to be done by the Government on uniform lines?—I think that having it done on uniform lines would be the better plan.

2653. If you got the space and went to Paris and found the stand already made in which you could put your exhibit, you would not grumble at the mode in which it had been erected, would you?—No.

2654. Do you think that more commercial men would show if there was more individual application—that is, more personal application made by the Commissioners? At present a circular comes round to a firm, and it may go into the wastepaper basket. Do you think that more firms would show if some prominent official of the Royal Commission were to come round personally and call on firms, and put before them the advantages and disadvantages, it may be from a business point of view or even from a patriotic point of view? Do you think more personal application of that sort would produce a better result?—It would bear very much more weight.

2655. (*Mr. Malcolm Ramsay.*) Suppose that by some chance the British Commissioner for an exhibition was to forget to send a circular to invite you to participate, would you apply to the Commission?—It would depend entirely as to where the exhibition was going to be held. If such a case happened to us and we considered that it was worth our while to exhibit we should apply for it.

2656. What I am trying to ascertain is whether you think you have sufficient means of finding out about the probable advantages of foreign exhibitions without receiving a direct invitation through the British Government. Are you satisfied with the present state of things?—I do not quite follow.

2657. I was going back to a question that I asked before. Supposing there was going to be an exhibition at Bucharest, and you received no official communication from the British Commission on the subject, would you find out about it from other exhibitors, or would you think it worth while to write to the foreign country and find out?—I think if we took an interest in the exhibition at all through seeing it advertised we should apply direct, but I should think that we should inquire first of all to see if there was anything being done in England in an official capacity.

2658. Do you mind telling us how much it cost you to exhibit at any exhibition, say at Paris in 1900?—Roughly speaking, I think our expenses were somewhere about £4,000.

2659. (*Mr. Wilson Fox.*) Does that include the preparation of the exhibit?—Yes, that includes the preparation of the exhibit, and it also includes freight, I think.

2660. Would it include the expenses in Paris of those who went over to look after the exhibit?—No.

2661. Those expenses would all be in addition?—Yes.

2662. You do not know what the gross cost was?—No.

2663. (*Mr. Malcolm Ramsay.*) Would that £4,000 include the cost of an agent in Paris, if you had one?—No.

2664. Did you have your own agent who was looking after your exhibit?—We had four assistants over there.

2665. And you do not put that in the figure you have given?—No; that comes into our ordinary expenditure.

2666. You went four people short at home, did you?—I think we kept our full staff at home; we had to add to our staff.

2667. (*Mr. Wilson Fox.*) That would add considerably to the cost?—Yes.

2668. (*Sir Isidore Spielmann.*) Would the orders received recoup you for those expenses?—No, nothing like it.

2669. But the awards would?—It is very difficult to know where an exhibition does make it pay. It is like advertising; you cannot put your finger down anywhere and say, "This makes it pay."

2670. (*Chairman.*) I did not quite understand why it was you did not exhibit at St. Louis; was it on account of the extra expense of taking your goods there?—It was principally on account of the very heavy duties.

2671. Not on the goods you were sending there, because they did not pay duty?—No; they did not pay any duty unless you made any sales, for instance.

2672. Your high-class goods, I suppose, go into the States a good deal, in spite of the duty, do they not?—Yes, they do; but we have not got to pay the duty; the customer who purchases the goods generally pays that.

2673. The customer pays it?—Yes, he does not worry us.

2674. I suppose you find that there is very strong competition with you in America?—Yes; we have got a fair amount of competition in America.

2675. Still, you do a trade there in very high-class goods?—Yes; we do. Americans like English goods; there is no question about it. They have a happy knack of saying "No," but still English goods find their way across the herring-pond.

2676. (*To Mr. Mappin.*) Have you anything to add to what Mr. Gibson has said?—(*Mr. Mappin.*) In regard to America, as Mr. Gibson says, we sell a lot of goods to go abroad there, but we find it is only to those people who are very rich, or who have special facilities for getting them over without paying the duty.

2677. Not by smuggling, I suppose?—You may put it any way you like. Our experience is that the ordinary person will not pay the duty. We have to pay 45 per cent. into Buenos Ayres, and the tariff in the United States is very heavy, of course, on our class of goods.

(*Mr. Gibson.*) In the United States they have got peculiar duties. For instance, if you take an undrilled pearl you pay 10 per cent., but if you take a string of pearls you pay 60 per cent.

2678. (*Chairman.*) (*To Mr. Mappin.*) Is there any other observation you would like to make?—(*Mr. Mappin.*) In regard to the international exhibitions that we would be most likely to exhibit at, of course nothing compares better than Paris. That is the place. With regard to what these other gentlemen have said about Brussels and Antwerp, I do not think for a moment our directors would entertain going far afield, because they would not feel that they would get a return. Then you see personally looking after it would be so much more expensive, because they would have to go backwards and forwards, and they would be keeping somebody there. The nearer home, of course, the better it is.

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2679. I suppose you would not go to poor countries?—No, it would not pay us at all to do that. I think Paris is far and away the best for us. I do not know that our directors would entertain the idea of going to other places, but they would not mind paying a lot of money to go to Paris, because you have so many people travelling through the city there.

Mr. Ira Henry Hillman, called and examined.

2680. (*Chairman.*) Can you tell us what business you have been engaged in?—I am an exhibition agent.

2681. You have been connected with several exhibitions, I suppose?—With most of them for more than 20 years.

2682. Can you tell us the principal ones?—Paris, 1889; Chicago, 1893; Paris, 1900; St. Louis, 1904; then Jamaica, Kimberley—I think pretty nearly all of them.

2683. Were you in Brussels in 1897,—Yes, and in Antwerp in 1894; and also in Glasgow.

2684. Were you at Milan last year?—Yes, I was at Milan last year, at Edinburgh in 1890, and in Australia and in the West Indies, too.

2685. Then you have had a very large experience?—I think as much or more than as any agent.

2686. I understand that you do not care to go into the first few questions on our list?—No.

2687. I will begin with asking you upon Question 5. Do you consider that the direct commercial results obtained by the official participation of this country in international exhibitions has been such as to warrant the Government in giving grants for the organisation of British exhibits in future?—Yes, I believe the results have been good.

2688. Do you think that we could not have had equally satisfactory results by private enterprise?—Not very easily.

2689. Not very easily, but still that we could have got them?—I think we might have got them, but not unless we had a very carefully organised committee of exhibitors and a permanent committee of exhibitors existing beforehand.

2690. A permanent committee of exhibitors, do you say?—Yes, I think there should be that.

2691. Supposing that there is public money granted, should that grant be made subject to any conditions about accommodation and facilities?—Yes. I think that is a very important point, because at the last exhibition in Milan I consider the exhibitors were badly treated by the officials, who did not fulfil their promises even. In the way of charges, the exhibitors were overcharged.

2692. For space?—No, not for space, but for the loading and unloading, and the general expenses of moving the exhibits there.

2693. Do you mean that the charges were raised upon them?—Yes, they were; and altogether the official people who dealt with the exhibitors there were very difficult and very unfair, I consider, and we had no appeal.

2694. Did you not appeal to the British staff there?—Yes, but they were not able to help us, because in this instance the President of the Exhibition, Signor Mengili, if I am rightly informed, was one of the principal owners of Gondron Frères. Gondron Frères, and the other carriers made a ring, so that if any appeal was made to the President by exhibitors who considered they were overcharged, it was simply referred back to the *ufficio recevimento*, and, as the President himself was interested in maintaining these high charges, nothing was done.

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2695. Did you not complain to the British Commissioners?—No doubt the representative of the British Commission out there was perfectly cognisant of this. He knew quite well what was going on, because we had often talked of it. But I did not appeal to the Commissioners for assistance to get the thing altered, because I knew that it would not be done. That is just the long and the short of the matter.

2696. You thought it was of no use?—Not a bit.

2697. You were not satisfied with the methods adopted for the British exhibit at Milan?—I was not satisfied with the charges made by the Italian Committee or with their consent. But I am not making any complaint about the British Commission. On the contrary, I believe that we have had more assistance, at any rate more sympathetic assistance, from them than we have had from the Commission at almost any previous exhibition. My complaint is against the Italian Committee for allowing the *ufficio recevimento*, a body organised within the Exhibition Company, to practically do what they liked with us, there being no appeal against them. I think this is an essential point, that we should in future so arrange things that they could not take advantage of us when we are once within their hands.

2698. Had you any complaints about the Paris Exhibition of 1900, and your treatment there?—No, I had no complaints there. I think the French and the Belgians are very much better to deal with than the Italians have proved to be.

2699. Coming now to the general organisation of exhibitions, how do you think British methods compare with those of other countries, so far as you know them?—As far as I know them, France takes the premier position. I am connected with the installation of and dealing with the exhibits, and I have had nothing to do with the executive except as it affects the installing, the looking after, the return, and the transport of exhibits; so that it is from that point of view that I look at it. Judging from the general effect in previous exhibitions, France in my opinion takes the first place. As to Germany, my impression was—and this was especially noticeable in Paris and in St. Louis—that the exhibit was more for Germany as Germany, as a nation, than for the individual exhibitors; the individual exhibitors were rather pushed aside, and were not prominent enough. Our method has that advantage, that the individual exhibitors are prominent.

2700. You thought the German method was too bureaucratic, in fact?—I did; and the way in which it was planned out, too.

2701. Would you like the United States methods?—I think the United States was better organised, in regard to transport especially, in their case.

2702. Are you speaking more of transport than you are of the position of the exhibits and the spaces allotted to them?—I am speaking of both. I am considering the exhibits, because I have been greatly interested in them. The impression upon visitors is

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in a great measure gained from the *tout ensemble*. The question is, when they come into the place, how it strikes them as they enter. Germany was very impressive in Paris and in St. Louis, but, as I say, I think the individual exhibitors were rather pushed aside, and were not so prominent as they should have been.

2703. What do you say about Belgian methods?—I think, especially in Milan, the Belgians had a much greater show for their money than some other countries.

2704. You rather prefer the Belgian methods, then?—I prefer France.

2705. France is the best, in your opinion?—Yes; I should like, if I might suggest it, the methods of France, but somewhat modified.

2706. How would you modify them?—I think it would be best for the manufacturers to deal with it generally, and to have a society formed by intending exhibitors, which any manufacturer or inventor could join on the payment of a nominal fee, and that there should be a permanent staff, which should be very simple, and one kept down to the lowest possible point. Then, if the society was formed, and the committee decided to go in for an exhibition, the Government should make them a grant, provided, of course, that the thing was organised properly; and the Government should afterwards send out a Commissioner, who should not be necessarily received by the Commissioner on the spot, but who should himself go round and look at the exhibits and form his own opinion, without a good deal of trumpet-sounding and flourishing, future grants being made or held back according to his report, and his report should have a great deal to do with the grants which were made in future. It seems to me that in the past too much money has been spent in the office and in ways which it would have been better to have avoided, and not enough on the exhibits and the arrangements and the decoration of the sections themselves.

2707. In fact, you would start the thing rather from the other end, and you would make the exhibitors the foundation?—Yes.

2708. A committee of them, or a society of them, would start it?—That is it.

2709. And the Government would only come in when you wanted to get some money out of them?—Yes; but I should like to see the fullest oversight on the part of the Government in order to see that the money was properly applied, and so on. It seems to me that the worst of Government affairs is the want of initiative. No man has any power to take hold of a thing and do anything himself. He always shirks it; he looks at his orders, and he gets out of it because he does not want any responsibility. I would like to see individuals allowed a certain play, where they can go in and take an interest in it and do it well.

2710. But you must have some managing body, must you not?—Yes.

2711. What would your managing body be—a committee of this society?—I should say so.

2712. Not a Royal Commission or a Government Commission?—No. Then there is the social aspect of the thing; that might be managed simply by a Commissioner who would go out to do the polite, but if you mix the two it seems to me that the business man gets left.

2713. The Government Commissioner would be more of an inspector, who would go out to see that things were rightly attended to, and who would do the social functions?—Yes, that might be so.

2714. But he would not have charge of the installation, or of the getting of the exhibits?—No. If it was necessary to have someone there from the social point of view that might be done; but at present I do not think that the money is very well spent, nor that the best results have been obtained under the conditions which hold now.

2715. Do you think that too much was expended at Paris on the pavilion, for instance? Do you think that was money wasted?—I am not up in these figures, but as to the general effect, in my opinion there was no other pavilion, especially having regard to the interior, which could in any way compare with ours. I think the effect of Morris's tapestries in the hall was simply magnificent.

2716. You were proud of that as an Englishman?—Yes, there was no doubt about that. It was very good indeed.

2717. I suppose under your scheme you would not have such a pavilion as that, would you?—Not necessarily. The committee of exhibitors or the society would not be able to deal with that question of the pavilion very well, would they? I should hardly think so. I was thinking more of their actual dealing with the exhibits and the space.

2718. Now about the decoration, should that be uniform, and should it be done by the committee, or should each exhibitor do his own?—I should prefer to see that done by the committee, because that is where we have failed a good deal. In Paris, for instance, I remember a case in point. The chemical section was in a square place with only one entrance, and the Sunlight soap exhibit was put up right across the front. It had a solid back, and anyone passing could practically only see the Sunlight soap exhibit, the others were lost.

2719. Were there other exhibits inside?—Any amount of them. A number of exhibitors came over and complained. Colonel Jekyll, I understand, gave them permission to rearrange the exhibits, providing all would agree, but nothing was done.

2720. In fact the Sunlight people had captured the whole of the show?—Yes.

2721. (*Mr. Wilson Fox.*) If your committee of commercial experts could not agree on a change in that case, how could they look forward to running an exhibition successfully in the future?—Yes, that is a very good point. But that occurred after the exhibition had been completed, and during the running of the exhibition, probably during the second or third month. It is a difficult proposition to tear a whole section out in the middle of an exhibition and rearrange it. Of course, Sunlight soap would object for one thing, because he was all right. But there is no reason why a body of men should not agree, just as the continental railway companies agree among themselves with regard to their traffic arrangements. They are not compelled by law, I understand, but they do agree.

2722. I do not say that an agreement is an absolute impossibility; I was only asking you the question on your own evidence?—Yes, I understand; but that was the reason, though, just at that time.

2723. (*Chairman.*) In other ways, how did you find the organisation of the British Royal Commission at Paris?—I think it was pretty good. Colonel Jekyll I noticed did not waste any time or money after the affair was over, but dismissed his staff. With regard to St. Louis, to my astonishment they kept them on. Are they all there now? Probably they are. I have not been round to see; I am going, though.

2724. You do not know how long it takes to wind up a Commission, do you?—I know what it takes us. We have to get our things wound up in about six weeks, or else we get into a difficult position.

2725. You think they have been too long in winding up?—I think they are terribly long-winded.

2726. That is the public purse point of view. As far as your exhibitors were concerned, had they much to complain of, do you think, at Paris or at St. Louis?—They had not, except as regards the spacing of the exhibits. That is one point which I think should be very carefully attended to. Then, I think, having regard to the amount of money which they had in the grant, arrangements should have been made for free transport, or, at any rate, for very careful arrangements in that way; but nothing was done, and it was all left to the individuals.

2727. Did you have to make your own bargains with the railway companies and the shipping companies?—Certainly. There were rates, you know, but each individual had to look after his own exhibits to a certain extent. There were some collectivities in St. Louis.

2728. Did you not get a reduction of rates?—Yes, there were some reductions; but I think in the case of a large Government grant—if that is going to occur any more—the transport should be free, and the things should be collected and delivered by the Government. I think that would be to the advantage of all parties.

2729. But you would not include the packing and unpacking, would you?—No.

2730. That should be done by the exhibitor?—Yes.

2731. You would include the transport?—Yes.

2732. How about the space; you would not include payment for space, I suppose?—That would depend on other conditions. Sometimes they have returned portions of the money, and I think once or twice they have returned the whole of it, but at present I am not at all satisfied with the way in which things are run, and I think that it could be done a very great deal better.

2733. Do you think that an association of manufacturers and merchants, who had paid a small subscription, could be a committee which could practically manage the thing better than it is done now?—Yes, I think it could be done that way better.

2734. And the chief duty of the Government should be rather to give you a sum of money?—And to severely criticise the way in which it was spent. I am doubtful whether an officer from the Government should come over to an exhibition, and just be escorted through the principal passages, or one of the passages, or through one building, and then should go back thinking things were all right. I am inclined to think that that is not a proper supervision of the spending of the money.

2735. Do you not want a figure-head for the management of the British section in an exhibition?—Not necessarily, that I can see, except for social purposes.

2736. You do not attach much importance to the social purposes, do you?—No, not so much. The people who were invited to these functions were not always people in any serious position, so I understand. I never went to one; I had always plenty of other work to do. But I am given to understand that they were not always the leading lights, either in commerce or in anything else.

2737. Do you think the invitations rather went by favour?—Yes.

2738. Would you have a permanent committee from exhibition to exhibition, or a small nucleus of a committee which should always keep the records?—I should have a permanent organisation, though not a permanent staff.

2739. But that should not be a Government organisation?—That is so.

2740. Not at all?—No.

2741. You think that the Government might spend this money, and simply have a sort of inspector or Commissioner present during the exhibition, seeing that it was not wasted?—Yes, I think that should be one of the ways. Besides the exhibitors themselves would be, I consider, not very smart business men if they allow the money to be misspent when it was intended to be applied for their benefit. I should hope that they would be wide enough awake to get the full advantage of the money, but at present they have not the chance of doing so.

2742. You think, in fact, money has been wasted?—I do think so.

2743. I think you told us you did not approve of the German system very much?—Not altogether. I think it is a little too much Germany. There is a point I should like to mention, if I might, before I forget it, and that is with regard to exhibitions in which there is no official participation. I think it is very important that some steps should be taken to prevent persons being appointed Commissioners who are unsuitable. The only way in which it has occurred to me that that could be done, seeing that there would be no Government grant and no official participation, would be to make it a rule in some way that in a case where there is to be no official participation and no grant, the nearest Consul should be nominated as a Commissioner, even if nothing was done, in order to prevent these unsuitable men getting in.

2744. But directly you get a Consul, then you have got a Government official?—I know. I am speaking now of those exhibitions in which there is no Government participation.

2745. Although there would be no Government money given, still you would have a Government official at the head?—In a way I would. It is the only solution that I can find, but perhaps there are other ways.

2746. We want to get your views?—For the benefit of the manufacturers, and for the credit of the country generally, I particularly wish to prevent any person obtaining from a foreign exhibition society the appointment as Commissioner for Great Britain, because the public immediately think that he is representing Great Britain, whereas he is not, he is only representing the exhibition society.

2747. Do you make this recommendation because you know instances in which harm has been done?—Yes.

2748. You say you know instances in which harm has resulted from persons not suitable in some ways being appointed as Commissioners, in cases where the Government have not given a grant, and have not taken a direct interest in the exhibition?—That is it. I think that a Consul might do that, although there may not be any exhibits. If intending exhibitors had to apply to him in the first place, he could if he required take simple steps to find out whether the intending exhibitor was a *bonâ-fide* manufacturer or exhibitor or not, and if he found that he was not, he could say "No, I cannot let you in." We should prevent two things then. We should prevent people getting in who ought not to be exhibitors, and we should prevent an unsuitable man being appointed as a Commissioner. If nothing was done at the exhibition it would not matter as I can see. It would simply keep an unsuitable person out.

2749. Do you mean that this Consul should be appointed by the Government?—As I understand, when an exhibition is intended to be held abroad, they almost invariably apply to the Government to see if they will go into it, do they not? In that case, if it is decided not, it would be a comparatively easy matter, would it not, to say in reply, "We are not intending to take part in this officially, but if there is to be a British section we would like that our nearest Consul should be nominated Honorary Commissioner."

2750. At present in the case of such exhibitions it comes to a body like the London Chamber of Commerce to appoint someone, does it not?—Sometimes, not always though. I have known people to be appointed who were about the very worst selection that it was possible to obtain.

2751. (*Mr. Harris.*) Appointed by whom?—By the exhibition company abroad.

2752. (*Mr. Malcolm Ramsay.*) Following up that last point about the Consul, I quite understand the object that you have in view, but would not the fact that the Consul was nominated British Commissioner immediately give an official *cachet* to everything he did?—I suppose it would to a certain extent.

2753. And would it not be very difficult, if he were appointed Commissioner, to avoid the impression that the British Government was officially participating?—The depends. The Consul is allowed to do other work besides Government work, is he not, abroad?

2754. That depends rather on the status of the Consul?—He would only be appointed by the exhibition company, not by the Government.

2755. I was thinking of three cases in which the British Foreign Office has nominated the Consul as British Commissioner, while the Government have officially declined to participate; it has been done as a sort of compromise, in fact. I think one witness has told us, or two witnesses have, that the consequence of that was that we were supposed to be officially participating, but the British exhibitors, being left to their own initiative, made rather a poor show, and the British Government got all the discredit?—That was a case in which, I suppose, he was officially appointed by the Foreign Office, but I do not propose that he should be that. I simply propose that the name should be suggested to the exhibition people for themselves to appoint him. If they like to pay him for the job, or if they do not like to, that is all very well, but it will not have anything to do with the British Government, because he takes up other business I understand, at any rate lots of them do, and the Government is not involved in that in any way.

2756. That does not apply to the Consuls in the big towns. I think they are supposed to give their whole time, and are paid an inclusive salary. But the question arises how they could combine looking after an exhibition, which I gather means very continuous work during the months in which it is open, with looking after the interests of British subjects abroad which they have to protect?—That was only a way in which I thought possibly the difficulty might be overcome. But there it is; it wants looking into in my opinion, and is of great importance I think.

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2757. Referring again to your suggested committee with a permanent nucleus, that nucleus, I understand, was to be unofficial—that is to say, it was to be composed of people who were not Government people?—That is so, it is to be formed by the society.

2758. Therefore if they received any remuneration the society would give it, I suppose?—Certainly.

2759. Supposing an exhibition was being started and, a Government grant having been given, this committee was over, say, at Paris organising matters with a Commissioner to see that the grant was properly expended—is that not your proposition?—I am not prepared to bind myself to exact details; it is only a suggestion.

2760. Would you make that committee responsible for negotiating with the foreign authorities for space?—Yes.

2761. They would do all that?—They would have to do all that.

2762. And not a Government official?—If the representation of British interests was fostered by the Government, I think then that they should be responsible for the whole thing. As to whether it would be a good plan to appoint a separate man to look after the social functions, of course, that also might be considered.

2763. But they are to have the whole business arrangements?—Yes.

2764. And if they find that the British section is put in an out-of-the-way corner they will have to negotiate with the foreign Government to secure a better site?—Yes.

2765. Do you think it would be at all likely that the manufacturers and intending exhibitors of this country would combine and create such a society?—I believe that is what has been done in France, and it seems to me that it is a very feasible and reasonable thing, if they are interested enough to think that their business is benefited by exhibiting, that they should be prepared to go a step further in order to get the very best results. I believe the best results can be obtained in the way I indicate; better results, at any rate, than by the present arrangement. I am not satisfied with the present arrangement, though, in all probability, speaking personally, if this society is brought about I shall lose.

2766. I think we agree as to the advantages of co-operation. I was only asking whether you thought the attitude of the British manufacturer would be likely to lead to effective co-operation?—I do think so.

2767. Do you think that British manufacturers are likely to combine? Is there at present any organisation among manufacturers which would lend itself to the creation of such machinery as you propose?—Not that I know of, except the employers' federations. Taking it all together, I believe that it would be to their interest to do it. The manufacturers in some businesses are not necessarily unfriendly; on the contrary, as time goes on I think they will have to be more and more in touch with each other in order to face competition from other countries. I think that is to their interest, and that, I fancy, is the way in which things are developing now—I mean in the direction of organisations or rings or understandings between each other. Of course, there is this point, that when they get into very large companies they sometimes cease exhibiting. Take cotton, for instance; now they seldom or never exhibit. Frequently in the past we had Messrs. Clark, of Paisley, but now that they have combined they do not exhibit. We have lost other people in the same way; through their having no competition they do not exhibit any longer.

2768. Have you had any experience as to a point which previous witnesses have mentioned—namely, the difficulty of getting exhibitors to come forward at these big exhibitions?—It is most noticeable in the case of the United States; that is all. Ever since we have been in business the number of exhibitors has increased, and our business has grown all the time in spite of that. After all, the trouble with regard to the United States is that the exhibits have been banged about so much, and that is one reason why I think the exhibits should be all collected and sent together, because then they would get better treatment. They have come back, but they have been astray and they have been neglected, and that is a source of trouble. That is one of the reasons why they will not exhibit in America. Another is partly on account of the tariff perhaps—in fact, they have told me so. But we have had no trouble in getting exhibits for all the other exhibitions, and, as I say, our business has grown. There are more exhibits than formerly. In spite of the trouble of getting them to come in they come all the same—don't they?

2769. Do you find that exhibitors are more keen to go to foreign exhibitions where the British Government is giving a grant?—No, only when they are going to be benefited by the grant themselves. If I can say to them, "Well, your freight will be free" or "Your space will be free," that, of course, is taken into consideration, because with a small manufacturer that sometimes means a considerable sum, does it not?

2770. To the big ones it does not mean so much, does it?—No.

2771. They look much more to the general advertisement?—I should think so.

2772. If they thought it was good for them to go to Paris——?—They would go anyhow.

2773. They would go whether there was a grant or not?—Yes.

2774. Would you say that of a good many people?—Yes, they would not care for a trifle. Then the awards are very useful to them. Exhibitors are very much disappointed if they do not get the awards; there is no doubt about that. The awards are a great assistance to them, even when they get no advantage in any other way by exhibiting; they will sometimes go for the award alone.

2775. (*Sir Isidore Spielmann.*) You are an exhibitor's agent, are you not?—Yes.

2776. Can you tell us how many firms as a rule you represent at these various exhibitions? Take, for instance, the last three—Brussels, Paris, and St. Louis?—In Paris, in 1889, we probably had about 30, and in 1900 we had about 100; so you see the difference. Chicago I am not sure about, but I should say perhaps 50; St. Louis, perhaps 70; then Milan, I suppose, taking them all together, there must have been 60. Milan was not so large as some of them; it was a little different.

2777. Are you representing any firms at the New Zealand Exhibition?—No, we decided not to go there; there was not sufficient in it.

2778. Is it fair to ask you which firms you represent? Can you give us an idea of their standing?—Some of them are very large. There is the United Alkali, for instance, they employ 12,000 hands. Then some of the shipbuilders have 3,000 or 4,000 hands. Many of them are very large houses—the largest of their kind in the world in several instances.

2779. And it serves their purpose, instead of sending a representative of their own, to engage you to look after their interests?—It seems so. They pay us for that.

2780. What exactly do you do for them? I think the committee would like to know what is the work of an exhibitor's agent?—At first we did not have anything to do with freight. We simply received the exhibits by the side of the space. From that they were entirely in our charge until we put them back by the side of the space all ready packed up for return home. So, whatever was done between the point when it arrived and the point when it departed, we did that—everything. Afterwards we found that they preferred us to give them an inclusive price from the moment it left their warehouse door till it came back to their warehouse door again. Now I give almost invariably a price which will cover everything—insurance, freight, and everything else—and I either return their goods on to their door, or I pay them the money for it.

2781. While the exhibition is in progress, do you take orders for them?—If we can obtain them.

2782. Do you try to get orders?—Yes.

2783. And you do business?—Yes.

2784. As regards the awards, do you represent the merits of the exhibits to the jury?—Yes. We represent the firms before the jury as the accredited representative of the firm.

2785. And I suppose you fight for the highest awards you can obtain?—Yes. You can rely on us for that,

because that is a very vital point with them. They are very keen about that.

2786. Do you find as a rule that the exhibitors like being represented by such a firm as your own?—Yes.

2787. Have you represented the same firms over and over again at the various exhibitions?—Yes.

2788. Do you find that any of them drop out?—We have had many of them from the beginning, but they do drop out.

2789. Are there firms who, once having exhibited with you, go in with you at other exhibitions as a matter of course?—Yes, we have had them sometimes fifteen times following. We have had many of them repeatedly.

2790. And at all kinds of exhibitions?—Yes. There are firms who have frequently in the past, I believe, abstained from exhibiting because they could not get a decent representative, and they did not like to go to the expense of sending a man of their own. They have told me that. That has been the reason why some did not exhibit, I know.

2791. You have worked under the control of Royal Commissions and the London Chamber of Commerce, I suppose?—Yes.

2792. You have told us what you do not like about Royal Commissions; do you find the management under the London Chamber of Commerce more satisfactory?—I really must say I think they are more approachable. I am not speaking from the point of view of the exhibitor, but as an agent only. I have frequently had very insolent treatment from members of Royal Commissions, and entirely without any reason for it. With regard to the Chamber of Commerce, I am bound to say that they have been more amenable. Mr. Serena—though I am not here to speak for Mr. Serena any more than for anybody else—has always been approachable. He has always been willing to receive me without keeping me waiting a long time or having a lot of formalities. With a Royal Commission, there has always been too much formality, and, as I have said before, the individual members of the Commission, though they may be excellent fellows, seem to have no initiative and no power to push out and take advantage of a fact and say, "Yes, we will do it." They must follow the line, and that line is not often the best line. They might have taken into consideration the special circumstances of the case and said, "Well, we know it is a little irregular, but it is evidently to our advantage, and we will do this," or "We will not do this." I should like to give you a case, if I am not taking up too much time, and I will mention a name so that there may be no secret about it. It is Messrs. Wenger's, Limited. They are manufacturers of paints and the covering material for pottery—glaze. In St. Louis they had a very nice exhibit. You should understand that they are not potters, but that they are only manufacturers of paints and glazes for potters to use. Therefore, they have no pottery of their own manufacture, and for exhibition purposes they simply had to get others. In order to show what they can do, they obtained specimens from a great many of the leading houses in France, England, Germany, Switzerland, and other countries also, to my knowledge—from quite a number of countries. They got different examples of pottery, not made by Wenger's, but made with Wenger's materials as regards the paint and the glaze. We exhibited those in two or three cases. Their American agents in St. Louis were very anxious to show that Wenger's glazes and paints were useful, and could be employed by American potters just as well as they could be employed by European potters. So they asked permission through us to place a small case containing American pottery, but made with Wenger's glaze and paints, in the section. Now I approached the officer who had to deal with that, and he at first refused.

2793. (*Mr. Wilson Fox.*) Who was he?—Mr. Lloyd. Then afterwards I approached him again, hoping he would perhaps feel more agreeable or willing and able to do it. He consented. A case was duly sent down and put into its place with American pottery in it. Would you believe it? He made us take that exhibit right away again on the ground that it was not English pottery. But in the other cases which we had sent from England, and which were installed a month or two before, there still remained pottery from almost every country in the world, and none of it was manufactured by Wenger, because he is not a pottery-maker. Yet he compelled me to take away that case of American pottery of which the colours and the glazes were supplied by Wenger. I was so struck by that—it seemed to me such an extraordinary case—that I appealed direct to the Commissioner, but the Commissioner upheld his ruling.

2794. (*Chairman.*) I suppose that was in accordance with the rules of the exhibition, was it not, and that they followed the letter of the rules under which the exhibition was held?—If that was the case, why were not the other things thrown out, too—because almost the whole of the exhibit was composed of similar things.

2795. Perhaps it did not appear anywhere that those other exhibits were from foreign countries; perhaps it looked as if they were all English?—I told them. I said, "In that case, you must throw the others out."

2796. It did not appear when you put in the other exhibits, perhaps?—No, it did not appear.

2797. I agree with you that it seems perfectly absurd?—It is indefensible.

2798. (*Mr. Wilson Fox.*) Your point is that it would have been to the advantage of British-made paints and glazes to have shown that they could have been utilised on American goods?—Certainly; that was just the point; that is all it was meant for.

2799. (*Sir Isidore Spielmann.*) It was exhibited for the glaze and not for the object?—Not for the object, certainly, but for the glaze and the paints.

2800. Perhaps the Americans did not like it?—There was nothing at all to show that it was used by Americans, only if Americans came round and said, "Yes, it is all very well, I daresay, they are good glazes, but they would not apply to our pottery." Then I could easily take out the American specimens and say, "Look here, turn it up, there is your American mark, and you see they have been using our glazes," just as I could with a Frenchman or a Swiss or a Dane, because I had examples from all those countries which I could produce, and which I did produce, to show them that it could be used for their pottery.

2801. To go to another subject, you represent manufacturers as a rule, do you not?—Yes, and inventors.

2802. Do you find any difficulty in getting the manufacturers to exhibit? We have been told by previous witnesses that manufacturers' agents—and I do not use the word "agent" in the sense used by you—sometimes prevent manufacturers appearing at exhibitions?—My experience is generally the contrary. They have frequently said to me, "We do not want to exhibit, but our agent wants us to do so. I suppose we must go, but we would rather not." I can assure you that is frequently the case, though it seems to be just the contrary of what you say.

2803. Can you give us any examples where the agents have wished their manufacturers to exhibit?—Yes. I have known many cases in which they have said to me, "We do not want to exhibit, but our agent asked us to exhibit."

2904. Are you usually satisfied with the spaces which are given to the firms you represent at the various exhibitions?—Do you mean with the individual spaces or the space for the whole British section?

2805. I should say rather with the positions that are given. Are you satisfied with the positions that are given to individual exhibitors?—You are not asking as regards the position of the whole section?

2806. No?—Yes, I am; but I wish to temper that by saying what I said before, that the best use is not made as far as the grouping and arrangement of the exhibits go. The positions are all right, so far; but they have not been nicely arranged—that is to say, an exhibit has been placed in the front with a blank wall behind it, and therefore it hides the other exhibits.

2807. We understood what you told us just now about that. Who is to blame for it? Who is it who allots to you the various positions for the various firms you represent?—The Commissioners.

2808. But who in the Commission?—That depends each time; it is a different officer very often.

2809. Take the Paris Exhibition of 1900?—I cannot answer that question, really.

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2810. I should like to ask you what was your opinion of the British Section at Liège?—It was a very poor one indeed; it was very badly placed, and very unfairly rearranged as regards passages and spaces.

2811. (*Mr. Harris.*) I would first take you to a phrase which was introduced by the Chairman, "private enterprise," but in rather a different sense; and I will ask you whether you do not think that perhaps the good results to British trade which come from exhibitions could really be better attained by such methods of private enterprise as advertising, commercial travellers, and so forth?—Yes, perhaps they might. But then they would in that case lose the benefit of the award, would they not? There would be no awards, which they think have a good effect. The value of an award which is in my mind is this—it shows the public that the man who is prepared to come to an exhibition and exhibit his goods is desirous of being in front, and says, in effect, "I face the world; my things are good, and I like them to be under the severest test." From that point of view an award is of service, because it shows that a trader is pushing and go-ahead, and wishes to be up to date. If there were no exhibitions they would not have that advantage of being able to advertise, "Gold medal, Paris."

2812. When you say that shows the public what a man is prepared to do, what public are you thinking of?—The man in the street—the purchaser.

2813. In this country or abroad?—Both, for things are sold abroad. They are often stamped, are they not, "Paris Gold Medal," so-and-so?

2814. Is it your experience that as a rule sales abroad do follow the exhibitions?—No, not so much as some people might think—not directly, but indirectly they do. I have been told by manufacturers that years afterwards they have had an inquiry from some one who has picked up an old catalogue of an exhibition, perhaps in Australia, and has sent on an inquiry from that.

2815. Do you draw any distinction between exhibitions in foreign countries and exhibitions in our colonies from the point of view of the advantage to the British trader?—No. I think that they have a chance of benefiting by exhibiting in foreign countries as well as in England.

2816. In referring to the Colonies I think you said you have not persuaded any firms to go to New Zealand, did you not?—We seriously thought of taking it up, but when we found that the people here in Victoria Street, the Commissioner, seemed to know very little about it, and could not make any definite arrangement with us, we let it go—not because at that time we were doubtful whether we could get a sufficient number of people to go, because I believe we might have obtained sufficient; but as they could not make any definite arrangements with us, and their terms did not seem satisfactory, we let it drop. We might have induced enough exhibitors to go; but as a matter of fact I think very few have gone.

2817. You cannot say now whether that is to be regretted or not?—I think we are very well out of it—from our point of view I am sure; I know that now.

2818. Do you put down that failure on the part of the Agent-General to give you information as another instance of officialism?—No. In this case I may tell you that we did the work of the construction for the New Zealand people almost entirely in St. Louis, and therefore I got into touch with the Commissioner there and made overtures to him which I think he was willing to accept himself, but which he felt he could not do without sanction, and as that sanction did not come over in time, as I say, we let the matter drop.

2819. Did it as a matter of fact come later, do you know?—It came, but it was not quite satisfactory. We asked that we might be the exclusive agents, as being a small exhibition we could not make it pay unless we had all that there was to go. They were not quite disposed to give us that, and we found that if others came in we could not make anything out of it. I am very glad we did not go. That is the whole of the story.

2820. I want to ask you a question about your idea of a committee of merchants as the best method of organising exhibitions. Do you not think that under such a committee there is a danger of trade jealousy, so that the small trader perhaps may be cut out?—I think I have indicated how that would be obviated, and that is by allowing any manufacturer or any inventor at a very nominal fee to become a member, and therefore he could personally influence the determination one way or the other. I do not think that they should or that they could refuse anything like a legitimate exhibit. I should think it might come out all right. At present you know sometimes people are refused space without any definite reason being given. They simply say and they have said, "We have not any space," or "We regret to say that we cannot allocate you space," when in all probability there is a great deal of space, but they had other reasons for not desiring this particular exhibitor.

2821. One question as regards awards; you have indicated that the awards are not necessarily given according to the simple quality of the goods?—That is so.

2822. Do you not think that if the British manufacturer really understood that, he would say, "I do not want any more awards; I will stand out of exhibitions altogether"?—No, he would not, because, as I say, though I myself would take no notice of a thing because it is marked as having won a gold medal, though I would not regard that as being any indication of a guarantee that it is better than anybody else's goods, I am influenced by the fact, and I am quite sure the man in the street is also influenced by the fact that the trader in question has a gold medal, because it shows that he is pushful, and that he is up to date.

2823. If it is the firm with a name which gets the award, as a rule, can you justify a grant of public money which really is a sort of subsidy towards pushing the trade of those firms?—From the point of view of the taxpayer I certainly disagree with any grant being made, because, as I think I remarked to the Chairman just now, it gives one manufacturer an advertisement at the expense perhaps of a competitor. From that point of view I am quite opposed to the granting of any public money.

2824. (*Mr. Wilson Fox.*) In collecting these exhibits from exhibitors, which I understand you do, is there any censorship of the character of those exhibits by the body which is promoting the exhibition or by the Royal Commission?—I presume so. A Royal Commission would not accept an exhibit unless they were satisfied that it was a product manufactured by the firm in question.

2825. Have you ever had one refused that you have been endeavouring to take abroad for somebody else?—Yes, we have had some refused.

2826. Have you gone and laid the case before the Commission and endeavoured to get it done through them?—Till quite recently the Commission ignored us, and they would not have any dealings with us as agents. But that has not been the case now for the last two or three exhibitions. At the last Paris Exhibition and at the St. Louis we have had more consideration from that point of view than we had before.

2827. Have you ever known a case where the Commissioner said "This exhibit is not good enough," and the firm or company interested have improved that exhibit, and ultimately sent it out?—Yes, I have known cases where they have improved it, and I have known cases where they have taken it away altogether after installation.

2828. Are you satisfied that there is a sufficient censorship of the exhibits by the people who promote them to secure that at any rate fairly good and reputable exhibits are sent out from this country?—When it is participated in by a Royal Commission I think so.

2829. You are satisfied of that—I only want to get your view?—Yes, but I am not satisfied with the general *tout ensemble*, the general arrangement and effect of the whole. That is a very vital point.

2830. You said that a representative traders' committee should be appointed, I think?—No, not a traders' committee.

2831. Then a representative manufacturers' committee?—Yes.

2832. You also said that you think a Commissioner might be appointed by the Government to do the social part of the work at the exhibition?—Yes.

2833. But who is going to do the practical work at the exhibition which has hitherto been done by the British Commissioner, as to finding the space, being

generally responsible for the place, and so on?—That I propose should be done by the society which might be organised.

2834. But these manufacturers cannot go out there and do it themselves?—No.

2835. I want to know who would be responsible for the credit and for the arrangement of the British exhibit, say in Paris, under such an arrangement as that?—The directors of a railway company do not individually see to the working of a railroad, I take it; and in this case, I suppose, the nominees of the society would have to be responsible, each in his department

2836. There must be a head man, must there not?—Yes, there must be.

2837. Do you contemplate that this manufacturers' committee should appoint a person who would act as Sir Herbert Jekyll and Sir Charles Watson and other gentlemen have acted in the past?—Yes, I should think that probably would be the best way.

2838. I am only trying to elicit your opinion. Do you think that a gentleman nominated by a manufacturers' association would be able to run an exhibition with credit from the Imperial point of view as well as a gentleman nominated by a Royal Commission could?—I certainly do, and I should think better, because, however able these men may be who have been appointed in the past, they were not, if I am rightly informed, quite the kind of men. I am only expressing my view on what I have noticed, and I may be incorrect, but from my point of view I should say that however able, and however good, and however capable men they were, they were not quite the kind of men, because they had not had previous experience. You cannot expect an officer of the Army, for instance—though I am not pointing to any individual, but let us take that, or an officer in the Navy, if you like. How can you expect a commander in the Navy to have knowledge and grasp enough to go out to a country and to have the arranging and getting up and the planning of commercial exhibits? It is unreasonable, I think, to ask him to do so.

2839. I am only asking these questions because we have not got precisely on the notes who you propose should run the exhibitions under your suggestion. Are we to gather that you would put in charge of the British exhibit in a foreign country somebody who had been accustomed to business?—Certainly.

2840. And, of course, you would agree that, besides being a business man, he should have a great deal of both *savoir faire* and tact in dealing with the foreigner?—Yes.

2841. He would also, I assume, have to know the language of the country in which the exhibition is being held?—It would be very nice for him to do so.

2842. It would be essential, would it not?—Not absolutely. We have had a case recently where the Acting-Commissioner did not know the language, and I have known cases before. But it would certainly be to his advantage.

2843. Would you agree that a man with all these qualifications—*savoir faire*, business knowledge, and sufficient knowledge of men to enable him to deal with all classes of men—would be a difficult man to find?—I do not know. I should say we need not trouble about that. I think the man can be forthcoming. I think there are such men. Not every Tom, Dick, and Harry would be suitable for the job, but no doubt we could get men.

2844. Now as to the representative manufacturers' committee, a great deal depends upon your word "representative," does it not?—Yes.

2845. Do you think it would be difficult to get up a representative manufacturers' committee which would be looked upon by the big traders and big manufacturers of this country in that light?—I do not think that is impossible. I think it might be done. I think English manufacturers and Englishmen generally are quite capable of putting the men forward and of selecting a committee which might very well be accepted as a very fair committee.

2846. Would they combine for it?—Yes, I think they would.

2847. Supposing an association was got up in London, you would agree, I expect, that it would be a disastrous thing if the great manufacturers in the North of England and in Scotland did not join?—Yes, they should be all in, no doubt. I should like to see them thoroughly representative of Great Britain.

2848. If they did not join they might not like being under the control of an organisation of this character?—They could always join if they did not like that. They would say, "Look here, we are out of this; let us join in it, and then we shall have a voice in the future." The thing rests with themselves.

2849. Is there not a nucleus or an organisation somewhat on these lines already in working order? Are not the Associated Chambers of Commerce supposed to be representative of the traders of this country?—Yes, I am not thoroughly up to just what their position is, but it might be so arranged that it could be worked in conjunction with them. I have not come here with a definite scheme laid down in all its details. It is more a suggestion that I am thinking of.

2850. I want to put this consideration to you, that unless you get what you call a representative committee it might be less agreeable to many of the manufacturers and traders of this country than a Royal Commission which would create no trade jealousies, whatever other drawbacks might attach to it?—Of course, there is that point of view; but the tendency in Royal Commissions I find is to be too exclusive. They do not meet you in any way. I am not speaking now of individuals. They do not meet the exhibitor. I have seen the exhibitor practically kicked out of office—not a poor agent, but an exhibitor—kicked out. They do not meet them in a spirit of fellow-feeling. They seem to look upon them as intruders. That is the worst of anything like a Royal Commission, that they are too exclusive, and they do not join hands. There is no sympathetic working or sympathetic joint endeavour to get the thing along. They stand at their place, and in effect say, "If I say 'Yes' I shall be committing myself"; and they won't say "Yes."

2851. I am not prejudiced one way or the other; I only want to get your view as to what you think is best. Would you say that there is some danger in a trade organisation of some trade jealousy?—No, I should rather think there would not be.

2852. Among the traders themselves, I mean?—No. I should think that more and more the tendency is to put aside any feeling of jealousy and to work together, because now it seems to me much more than formerly that it is not a question of individuals so much as of nations, and that they will be forced to act together in order to meet the competition of other nations.

2853. That, of course, is a broad view to take; but do you think that has percolated down to the individual trader yet? Does he look upon his industry from the national point of view, or does he look upon it still from the personal point of view?—Not from the national point of view, but it will be to his personal interest to support the national point of view, though of course he will still fight for his own hand, I suppose. He will find that it is more to his interest, I think, to join with his fellows rather than be in opposition to them, so that he may meet the foreign competition.

2854. You would like some organisation which is the least violent to the exhibition agents?—No. As I say, I have tried to put myself out of it, because I think very likely, if this society that I would like to see made were established, I should be out of work. But that does not signify. I try to look at it from the broad point of view that if we are going to do the thing we might as well do it as well as it possibly can be done.

2855. That brings me to this question; You have been to a very large number of these exhibitions, and have had a great experience. Looking at the British commercial exhibits only, do you think, on the whole, that as a rule they compare favourably with the foreign commercial exhibits or not?—I think they do. In material and in value for money I think probably they are ahead very often; but they are not arranged and placed so as to make the most effective impression.

2856. They do not give to the public the idea that they are as good; is that your point?—That is it; the public is not affected favourably anything like as much as it should be, and could be, if the things were properly arranged and properly dealt with.

2857. And you would in the future leave that arrangement to some organisation, whatever it might be?—Yes. The exhibits, to be effective, must be dealt with collectively as a whole; but I do not want to take away the individuality of an exhibitor, because

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that is just where we shall tumble the other way if we do that.

2858. I quite see that. At the present moment you get the spaces offered you, and you go over there, and you put up some show-cases or some little building in which you show the exhibit of a particular manufacturer. Would you be satisfied in the future, and would the manufacturer and the trader be satisfied, if you went over and found everything arranged for you—the space allotted to you, and the little building in which the exhibit was to be shown all put up, and you had nothing to do but to simply go and unpack the goods and put them up? Would you be satisfied in having that arrangement carried out for you?—I think that the exhibitor would be, as I say, providing he had a voice, or could have a voice, in the arranging of the space and other conditions in advance, as he would have under my proposal.

2859. But would he? If the organisation wanted to improve the general aspect of the whole British exhibit, might they not suggest that they could choose the space better for you, and also give you a uniform class of buildings throughout?—Yes, I understand.

2860. Would that be objectionable to you?—I do not think so, because the individual exhibitor would have a voice in this if he cared to become a member of the association.

2861. One witness came here and said that he would view with regret any suggestion that individual exhibitors should not put up their own particular building or their own particular case in which they showed their exhibits?—I should like to permit the individual exhibitors to maintain their individuality to the farthest possible extent, so that if they wished to have their own installation they could do so; but it should be brought into harmony with the others within a reasonable extent, and not allowed to be thrown up anyhow, and to be one colour here, another colour there, or twenty colours.

2862. You would have to put yourself under a certain amount of control, though?—Yes, and you do that when you enter into any commercial engagement; or when you go to an exhibition as it is now you are under control.

2863. But you think there could be more control, and yet the trader or the manufacturer could be given a fairly free hand or some voice in it?—Yes, I think it could be done.

2864. You said that there are indirect orders, owing to the fact that an exhibit has been sent to a foreign exhibition, but you cannot calculate the amount?—No, it would be difficult to do that.

2865. Do you think, upon the whole, that it pays the people for whom you have acted, from the export point of view, as increasing their foreign trade, to show at these exhibitions?—I think that is so in some cases, but not in all. There are some exhibits which are made which have often seemed to me quite useless; but then, as I say, there are many factors which have to be considered. You have to find things out before you can determine why such-and-such an exhibit is sent, even if it appears that there is no advantage. For instance, they frequently go to oblige other people, or they go perhaps to oblige a society in London. There are many ways in which exhibits are got in.

2866. Do they go sometimes because their chief competitor goes, and they dare not stop away?—Yes, they do sometimes go on that account.

2867. On account of the foreign trade?—They sometimes go on account of their home competitor.

2868. And because they are afraid that their chief competitor will get the foreign trade instead of them?—That is another reason for their going.

2869. Do they go also because they are afraid that their chief competitor will get a medal for home consumption here?—Yes, I think that also comes in frequently.

2870. Take a trade where there are one or two leading firms, and assume they agree not to go——?—They do sometimes make that agreement, I know; that has been done.

2871. I wanted to get at that; they do make that agreement?—Yes, I know they do.

2872. (*Sir Isidore Spielmann.*) We have been told that at some of these exhibitions, especially at the last Milan Exhibition, there were a good many firms in the English section selling what is called trash. Were any such firms among your exhibitors?—No; absolutely none—not one.

2873. You know the kind of firm I mean?—Yes; what we call fakers, though I do not know where the term came from. I have never heard it defined, but the definition I have often felt to be is this—a faker is a person who sells something which he does not manufacture, and which is not a genuine article. That is, in my opinion, the definition of a faker—a man who sells something which he does not make, and which is something that is not a genuine product.

2874. (*Mr. Harris.*) What do you mean by something that is not a genuine product? Do you mean, *e.g.*, brass for gold?—Yes, sometimes that, and so on.

2875. (*Sir Isidore Spielmann.*) But you do not take such exhibits?—We have never had anything to do with those. There was one point which I think I should like to mention, and that is at one exhibition which I attended a certain statement was made in the public Press which just shows you how careful we should be in the appointment of Commissioner, especially where the Government gives no grant; this is touching on my suggestion just now. In this case the Commissioner stated at a public dinner, I believe, so far as I understood the report, which I think I read myself in the paper, and I was present and saw what the effect of it was in the section—that owing to a rearrangement which added very much to the effect of the section he was able to add, probably, I think it was 2,000 square feet additional space. Now that was done in this way: I know my facts, because I was there and saw the whole thing. First of all, the space was planned out in London, and an exhibitor comes and takes a space, say it is a corner space—that is, with a passage *this* way, and a passage *that* way, on the understanding that the passage shall be, say, 8 feet wide *here* and 8 feet wide *there*—and he pays perhaps £50 for that space. The passage is shown as running right clean through the exhibition; it is a main gangway running through two or three other countries' exhibits also. So anyone coming along would naturally arrive at his exhibit, because it was in the main gangway. When the exhibitor arrived, he found, instead of the passage being 8 feet wide, it had been reduced perhaps to 6 feet, let us say, and instead of it being a corner space with a passage on each side, there was only one passage. This exhibitor perhaps had paid £50 for that space, and I can imagine that he might feel he had been swindled. On that occasion the Commissioner in question had simply reduced the passages, and obtained the space in that way. He had done away with other passages, and, what is more, rather than pay a proportion (at the suggestion of a neighbouring nation), which was very small, towards a little decoration of the division between the two, he preferred to allow that passage to be boarded up. So you see the exhibitor was wronged in two ways, or three ways. His passage was made narrower, one passage was taken away, and a passage which should have connected through into the other sections, and therefore ensured to him a goodly number of people passing his stand, was done away with altogether, and the British section on that occasion was, so to speak, shut up in a corner.

2876. At what exhibition was that?—If this evidence is to be published, I think I will leave you to find that out for yourselves.

Mr. Joseph Henry Cundall, called and examined.

Mr. J. H Cundall.

2877. (*Chairman.*) What is your profession?—I am a civil engineer.

2878. But I believe you have had great experience of foreign international exhibitions?—Yes, I have.

2879. What exhibitions have you been connected with?—I have been connected with the four Paris Exhibitions of 1867, 1878, 1889, 1900; then with the Vienna Exhibition in 1873, the Philadelphia Exhibition in 1876, the St. Louis Exhibition in 1904, and I am just home from the Milan Exhibition of last year. Besides that, I have had various experiences in refer-

once to the long series of exhibitions at South Kensington, and in reference to some provincial exhibitions.

2880. Were the provincial exhibitions you were at those of Manchester and Glasgow?—No. I was at Cardiff and at Wolverhampton. I had nothing to do with Glasgow.

2881. What opinion have you formed as to the effect of foreign international exhibitions?—That is rather a difficult question to answer.

2882. Have these exhibitions been helpful or the reverse?—They are certainly helpful in my opinion.

2883. What particular classes of industry have had most benefit from them do you think?—So much depends upon the country where the exhibition is held. If I might take the last instance I have had—Italy—undoubtedly textile machinery and agricultural machinery?—Yes; I am speaking of the exhibits from

2884. That is British textile and agricultural machinery?—Yes; I am speaking of the exhibits from this country.

2885. Do you know of any industry which has been adversely affected by exhibitions?—No, I cannot say that I do.

2886. Do you think that the direct commercial results obtained by our participating officially have been such as to warrant the Government in giving grants for the organisation of British exhibits in future?—Yes, certainly. Other countries do it, and it hardly seems possible that Great Britain should be left out.

2887. Could it not have been done in the past by private enterprise quite as well?—We would have been very much worse off than we have been lately if it had been done by private enterprise. The other countries spend so much more than we do in nearly every case.

2888. Do you think that before a Government grant is given any condition should be laid down about getting good accommodation at the exhibition?—Yes. That is where we very often lose a great deal, because the Government grants have been made so late that other countries get the pick and choice of positions and other matters before we do.

2889. I was putting the question rather in another way—namely, whether you thought that the Government should not agree to give any grant till we knew that there was going to be plenty of accommodation given to us, and that plenty of people here would exhibit. Do you think the Government grant should be given a long time beforehand, without any conditions being specified?—I would not say that the whole grant should be, but there should be some grant, so that some inquiries could be made, because it takes some time to ascertain what can be done.

2890. You have been connected with so many exhibitions that you must have seen various kinds of organisations?—Yes, I have.

2891. You have had Royal Commissions for most of the exhibitions to which your experience relates, I suppose?—Yes.

2892. Do you approve of a Royal Commission as the best organisation?—I think it is the only organisation that will really work.

2893. Have you been connected with any other form of organisation?—The last exhibition—Milan—was not under a Royal Commission, as you perhaps know; it was under a so-called commission formed by the London Chamber of Commerce.

2894. How did that compare with the others in your experience?—The members of Chambers of Commerce do nothing at all; whereas the members of the Royal Commission, I have always found, when they were on committees, worked and helped matters forward; whereas, as I say, the Chambers of Commerce scarcely do anything.

2895. But they are more business-like men, are they not?—That is entirely a matter of opinion.

2896. I want your opinion. In your opinion, were they not good business men?—They may attend to their own business.

2897. Do you know anything about the organisations adopted by foreign countries for dealing with exhibitions?—Yes.

2898. I suppose you have noticed those in your experience?—Yes. The French have a permanent office connected with the Ministry of Commerce, and then they have a separate organisation, which is a trade organisation or association.

2899. We have had that explained to us; I only want to know your opinion on the French organisation. Do you like it?—The French organisation goes to a certain point. It does not embrace every trade by a long way; it is more confined to Paris and the small manufacturers of Paris, and it does not take the outside.

2900. I suppose it touches Lyons, does it not?—It may take silk textures, because they are more intimately connected with Paris than with anywhere else; but the engineering firms, the cloth manufacturers, and the pottery people, none of them belong to that association.

2901. Would it take in Roubaix and the woollen industry?—Yes, I think it would, but not cotton—that is a small industry, you see, in France.

2902. You do not think it takes in the whole of France?—No, not by a long way. I suppose they would let them join the association if they wished to, but as a matter of fact, they have not joined.

2903. What do you say about the German system?—The German system is purely a Government system, and it is attached to their Foreign Office. They work it through their consular service a great deal. At St. Louis they had their Consul as their vice-commissioner, and in Milan their Consul-General was their chief commissioner. It seemed to act very well indeed. By using their consul they know exactly what the trade of the country is, and they are able to canvas manufacturers in that trade.

2904. So far as you have had experience, do you think they get hold of representative people?—Yes, undoubtedly. Besides that, the consul, as he is living on the spot, is able to make better terms with those in authority at the exhibition than strangers would be, and then consuls find out from one another what is going on.

2905. Are you in favour, then, of appointing the consul of the place at which the exhibition is to be held?—Yes, I think that is a very great advantage.

2906. Where there is no Royal Commission, do you think it would be better to appoint the consul than to have the representative of any particular Chamber of Commerce?—Yes; but then there must be some organisation on this side as well.

2907. And that organisation you would prefer to be the old Royal Commission?—I should, certainly.

2908. In cases where it is not a big enough exhibition to have a Royal Commission, what organisation do you prefer?—I think it is better that the Government should leave it alone, and let manufacturers go on entirely on their own account, if they like.

2909. That would be probably to leave it to the London Chamber of Commerce?—I do not see the good of a small grant at all. For instance, there is an exhibition, I believe, going on at Bordeaux. There is no assistance given, no organisation on this side, and anybody who wishes to exhibit will simply have to apply to the exhibition authorities at Bordeaux.

2910. (*Mr. Malcolm Ramsay.*) I understand that the British Consul has been appointed by the Foreign Office to take charge of British interests in connection with the exhibition at Bordeaux?—I was not aware of that.

2911. (*Chairman.*) To what do you attribute the success or failure of British exhibits in the late exhibitions? I suppose you think that there have been several exhibitions in which we have not been well represented?—Of late years we have not been well represented at any exhibitions scarcely—not as we ought to have been.

2912. Why is that?—I think it is due to apathy on the part of manufacturers here, generally speaking.

2913. Is it that they have got plenty of business besides?—That is what we have been told in the last few years.

2914. Do you think that we could improve the machinery?—I do.

2915. How?—By organising collective exhibits under certain conditions.

2916. Have you ever thought that we ought to have a small permanent organisation?—Yes. I think it would be a very great help indeed to have a small office

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were they could obtain the information, which manufacturers desire beforehand, as to the cost of freight, the duties and various other questions which are always being asked.

2917. In the conduct of an exhibition itself you would not make much change, I take it; you think that the relations of a Royal Commission to the exhibitors have been fairly satisfactory?—Yes, except that a Royal Commission of course has to start afresh every time.

2918. Have your relations with the exhibitors, or with the exhibition agents, been of a pleasant description generally?—Yes.

2919. Have you had trouble with them over space?—There are little troubles, of course, constantly occurring, but nothing serious.

2920. Do you think they have generally been satisfied?—Exhibitors are generally satisfied, but the agents grumble occasionally.

2921. Should you say the agents are a grumbling lot?—Yes. Of course, they are just there simply to make what money they can out of it, and if they can get the Commission to do the work it saves them paying for it themselves.

2922. At Paris do you think that our exhibitors were well treated?—I do not think they have any cause for complaint.

2923. As regards awards, do you think that the system of awards is satisfactory?—Generally speaking, I think they are a great deal too liberal.

2924. Could they be done without altogether?—No, because a great many people show something for the purpose of getting an award.

2925. Do you think the awards are fairly conferred?—In most cases undoubtedly they are.

2926. You said you were at St. Louis?—Yes.

2927. Do you think that the pavilion at St. Louis was worth the money spent on it, as an adjunct to the exhibition?—Looking at it from the point of view of what other nations did, I do not see that it would have been possible to do anything else, because the British Government did not spend nearly what Germany did or what France did.

2928. Do you think there is a great advantage in having a beautiful building of that sort?—There is no commercial advantage, but generally for the purpose of upholding the position of England it is necessary to have something like that where others do.

2929. (*Mr. Wilson Fox.*) In your *précis* you say that "if Great Britain is to maintain its position in the commercial world it seems to me to be necessary that its manufacturers should be represented at all large international exhibitions." Has your experience been that a number of the leading manufacturers of this country are not represented?—Certainly. It is very difficult to get the leading manufacturers to come into the later exhibitions, although in the earlier exhibitions we used to get them.

2930. Is that because in the earlier exhibitions they had got their medals and awards, and they were afterwards resting on their laurels?—No, I do not think it is due to that.

2931. What is the reason?—A great deal is due to the system of commerce in this country. Our people appoint foreign agents, and the agents do not like their principals to exhibit.

2932. But that is only the case in certain lines of business, is it not?—You will find that in a good many lines.

2933. But it is not the case where a foreign agent is appointed, and he is pushing a particular manufacturer's or trader's goods by name, that he objects then, is it? Take a big firm which is selling an article of which that firm is practically the monopolist; take, for instance, Colman's mustard. Would not an agent abroad wish to sell that article under its name, and would not the buyer abroad buy it because it was Colman's mustard?—Yes, but that is a speciality. Take cloth, or something that is more general.

2934. I think I know about the textile arrangements. There it is different, because the manufacturer sells his goods to a merchant and the ultimate seller and also the buyer does not know where they have come from?—That is very true.

2935. He might buy them through a middleman and know nothing of the manufacturer?—Yes.

2936. Taking the ordinary manufacturer—taking, say, Maple's furniture, would not people abroad buying furniture prefer to buy Maple's furniture?—Yes, certainly.

2937. Would it not be an advantage to show furniture under a well-known name like Maple's?—Yes, in the case of furniture. But an agent for a firm like Maple's would be agent for that firm only, and he would not be agent for half-a-dozen other makers of similar furniture.

2938. Can you tell me some more lines of goods in which the agent would wish to suppress the name of the maker or would not wish the goods to be shown at an exhibition under the name of the maker?—They do that a great deal in the case of the Sheffield trade.

2939. I believe that is so in the Sheffield trade?—Yes, it is in the cutlery and plated goods.

2940. Are there not many large firms in this country who owe the sale of their goods largely to the name they have made?—Undoubtedly there is a large number of them.

2941. It would pay firms of that sort who have got this reputation to show those goods under their name, would it not?—Of course it would—it must do.

2942. Among that class of manufacturer or trader do you find much reluctance to show?—Yes, of late years.

2943. Do you know why that is the case among that class of person? Is it the expense, or what?—A great deal of it is due to the expense.

2944. But with a firm doing a very large amount of business; for instance, a firm like Mappin and Webb, would a question of £3,000 or £4,000 stand in the way, do you think?—I should not think it would.

2945. Is it because they have got such a great reputation that it is not necessary to go on advertising in this particular form any longer? After all, a foreign exhibition is an advertisement pure and simple, and nothing else?—Yes.

2946. Is it because these firms have made such a big reputation that it is not worth their while to spend money on this particular form of advertisement?—I presume that is it.

2947. You have had a very great deal of experience and been to a large number of exhibitions, and therefore if you will be good enough I want you to give me your opinion as to how you think the British commercial exhibits compared with the foreign commercial exhibits; were they better or worse, or what do you think?—Undoubtedly in most cases the English exhibits are better, but they are not so well shown. There is a want of organisation in our exhibitions which is made very apparent by the way the Fench or the Germans show theirs.

2948. Do you consider the French and the Germans make more of their exhibits?—Yes, a great deal more.

2949. And ours are not shown to the best advantage?—Ours are not.

2950. Is that due to the system of organisation?—Yes, entirely.

2951. I believe you are in favour of a Royal Commission?—Quite.

2952. Would you suggest that the British Commissioners should take more adequate steps to control the manner and the method in which the various exhibits are presented to the public?—Yes, I certainly should.

2953. At the present moment that is not done?—No.

2954. And each exhibitor shows his exhibit, provided it is once passed, in any form he chooses?—Yes.

2955. (*Mr. Harris.*) You stated in one of your answers to the Chairman that the French organisation for exhibitions was partial, and did not touch the whole of the country. Do you think that it fails to do that more than our more, so to speak, haphazard methods?—When the association does not come in, then the Government helps that part of the general trading community.

2956. We have had it in evidence here that if in England you only had a greater element of commercial knowledge upon the committee, leading up to an

exhibition, you would get a better exhibit; is that your opinion?—No.

2957. You would not substitute a commercial commission for a Royal Commission then?—No, I certainly should not. I think a Government Commission is far better, especially if it is composed of people not connected with trade.

2958. Taking a case you referred to, where manufacturers go to an exhibition on their own account, what sort of representative would they have to look after their interests?—They are either obliged to have a local agent or to employ a man specially for it.

2959. But it is done entirely privately?—Yes.

2960. As far as you know, is there any attempt made to convey the idea that it is looked after by some British official?—No, I should think not.

2961. Not as a rule?—No.

2962. You have referred to the apathy of manufacturers; do you think that is due in any respect to the idea that exhibitions do not pay them as a matter of trade?—I presume it is.

2963. Do you think you could bring it down to that, I mean as the actual reason why they do not care to exhibit?—It interferes with their regular business so, that is why they do not like it a great deal.

2964. So that you really have rather to push your manufacturer?—Undoubtedly you must.

2965. Does that not lead up to the idea that you ought not to be spending public money upon forcing people to do what, as a matter of business, they prefer not to do?—Other nations do it, you see, to a greater extent than we do.

2966. You did make some reference to the Milan Exhibition having produced orders in Italy; it had been an advantage to trade, I think you said?—Yes.

2967. Did it produce orders for textile machinery?—The textile machinery people did very well indeed.

2968. In the way of actual direct orders?—Yes.

2969. There was one remark you made about which I was not quite clear. Are you correct in saying that at St. Louis France and Germany spent more on their pavilions than Great Britain? Was it not the case that they put up a much more showy structure at a much less cost?—It certainly was not at less cost. They both of them must have spent much more than we did—considerably. We never got the exact cost of either of them, but it certainly must have been more than ours; Germany I should say was double.

2970. (*Sir Isidore Spielmann.*) I think you said that we did business at the Milan Exhibition in textile machinery and agricultural machinery?—Yes.

2971. Was any business done in any other direction?—I do not think there was.

2972. Had we any other important exhibits there, apart from ship models?—There were some steel exhibits and matters connected with ships, and there were one or two exhibitors there who were more or less coerced by the Italian Government for whom they were carrying out large contracts.

2973. Had we any other heavy machinery there, locomotives, for instance?—No, we had nothing whatever in that way.

2974. Did other countries send them?—Yes, we had a great quantity of locomotives from every other country in Europe except ours, I think.

2975. We used to have a trade in locomotives in Italy, did we not?—Yes. Half of the old locomotives certainly are English, and that would be so again only our locomotive makers will not take orders, or rather will not guarantee delivery.

2976. But other countries did send locomotives?—Every one of them—the Russians, the Belgians, the Germans, and the French.

2977. I have heard it said that locomotives were exhibited there by foreign countries which were destined for Egypt?—Yes. There were four for the Egyptian railways, two German and two Belgian, and they went straight from there to Egypt.

2978. Do you regard the British section at Milan, taken as a whole, as a success?—No, quite the contrary.

2979. What is your opinion of the Government grants to Royal Commissions; are they adequate?—The Royal Commission grants of late years have been fairly adequate, but I think if a little more were given we might do very much better—that is, very much more might be done.

2980. How do ours compare with foreign grants in your experience?—That is a very difficult question to answer, because I shall have to go by hearsay on that.

2981. Take the German grants?—I have tried very hard to find out what the Germans do. There is a grant made to them like that which we have made to our Royal Commissions, but I think I am absolutely correct in saying that their grant is supplemented from the Privy purse. I am sure that that was so in St. Louis, and I believe that it was so in Milan.

2982. Did Germany make a very large display at Milan?—They were the most important of anybody.

2983. Can you tell us who allots space in the British section as a rule at exhibitions? Take Milan, who allotted the space there?—I did.

2984. We had it from a witness here, who had an exhibit of ceramics, I think, that he had as a neighbour a man who was selling trousers-stretchers?—That I had nothing to do with; that was after I left. I had only a little to do with it really. I did the big allotments, and then I left all the rest.

2985. Can you tell us how the fakers came into the British section at Milan—not through your introduction, I am sure?—Absolutely no. I think it was simply through the mode of procedure that they pursued at Milan. They gave anybody who chose to come and pay down half the money demanded for space a receipt for the money and a promise of space—whoever they were or whatever they were; and no proper inquiries were made as to who the people were.

2986. It has been stated here that in the British section there were firms exhibiting who were not even British subjects?—Exactly. There were Armenians, Poles, and all sorts of people.

2987. How could they come in?—In two cases I know of they came in under false names—they used English names.

2988. We have heard a good deal of criticism of Royal Commissions; can you tell us who appointed the Commission at Milan?—The London Chamber of Commerce, I presume.

2989. Would that be the Exhibitions Committee of the London Chamber of Commerce?—I think not; I suppose it was the full body, but I have really never inquired much about it.

2990. Do you know of whom the Commission consisted—were they exhibition experts or manufacturers?—No, certainly not.

2991. Neither?—Neither one nor the other. I do not think any man of them, except Sir Albert Rollit, ever had had anything whatever to do with an exhibition before.

2992. We have been told by exhibitors that they have not received proper treatment and politeness from the officials of Royal Commissions. I think you did answer that question in the beginning of your evidence, but is it perhaps a fact that exhibitors sometimes are a little exacting and bring such treatment upon themselves?—Absolutely. It is not the exhibitors themselves, but it is their agents who are always the trouble. I never remember a case of a manufacturer ever having any trouble.

2993. Did I understand you to say that when such friction occurs it is very often because the agent tries to make the Royal Commission do and pay for what he has himself undertaken to do and pay?—Yes, exactly so.

2994. (*Mr. Wilson Fox.*) When you see an agent you generally look out for squalls?—We expect it.

2995. (*Mr. Malcolm Ramsay.*) May I press you a little about the extent to which you consider the public should pay for participating in exhibitions? You say the earlier exhibitions were undoubtedly a help to commercial relations, and later ones also, but to a lesser degree; in saying that, are you considering the general effect on the trade of the country or the benefits which accrue to individual exhibitors?—The general effect on the trade of the country.

2996. As concerns the individual, I gather from your previous answers that you consider that the

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benefits are very unequally distributed?—Yes, they must be.

2997. There are some trades in the country which get very little direct and even indirect benefit out of exhibitions, is that not so?—Yes.

2998. But there are others for which exhibitions are a very convenient form of advertisement?—Yes.

2999. Do you think that we could justify the expenditure of public money on exhibitions so far as regards the individual? May you not be running a danger of subsidising the individual firm, or of giving one trader an advantage which another trader cannot have?—No. When you subsidise a particular trade you have to be very particular about giving everybody an equal chance.

3000. Can you give everybody an equal chance by the means of exhibitions?—I do not see why you should not be able to do that.

3001. If you were to try to do so, would you not have to go to every exhibition wherever it may be held, or at least to a great many more than we have been in the habit of going to?—I think not. I do not think the small exhibitions do any good whatever.

3002. Then you would confine it to the larger ones, would you?—I would confine it to the big international exhibitions.

3003. But you think even there you could distribute the benefits more evenly?—I think so, especially if we had a permanent organisation, and it was known through the various trades. We should then find that there would be very much less difficulty than there is now.

3004. What would you call the big international exhibitions? Would you include the exhibitions held at the smaller capitals and cities like Brussels and Antwerp?—I suppose you would have to include Brussels.

3005. Would that not involve ultimately a very large expenditure?—They do not come very often.

3006. We had Antwerp in 1894, Brussels in 1897, Paris in 1900, and St. Louis in 1904—practically they came at intervals of two or three years. I put it to you that the danger is that by going into these exhibitions wholesale we may accumulate a very considerable burden of which you, as a taxpayer, will have to bear part, and of which the direct commercial benefits are very doubtful?—Yes, that is true.

3007. Is that an unfair way of putting it?—No, it is quite a fair way to put it. It certainly wants discretion if the Government is going to do anything at all.

3008. You would discriminate?—I would discriminate.

3009. Would you confine your efforts to the largest exhibitions?—Yes, to those that are under Government patronage or the patronage of the king of the country, or the president if it is a republic.

3010. Would you abstain altogether from the smaller ones?—I would certainly.

3011. (*Mr. Wilson Fox.*) Upon this question of the allotment of space, of which we have heard a good deal, I understand that you had charge of the allotment of space at Milan?—Yes, except that part that Sir Isidore Spielmann referred to; I had nothing whatever to do with that.

3012. I want to ask you this: Do you allot the space after you have got your applications in, and have got the whole planned in your mind?—Yes.

3013. You get all the applications in first?—Yes, you must; you cannot possibly do it otherwise.

3014. It is all allotted on a uniform plan, and you have before you the needs of everybody in the British exhibit who is sending anything?—Yes. May I give a little explanation? On all Royal Commissions we have always had committees of the Commission formed; I made the allotments of space for many exhibitions, but we have always taken care to submit the plan of allotment to the committee, and have made what alterations the committee thought necessary. Very often the committee would know the exhibitors marked on the plan, and would make certain alterations, and I think it is only right that they should.

3015. Do you make any grouping as to trades?—Yes; modern exhibitions are always arranged so.

3016. In allotting the space do you consider at all the excellence of the particular exhibit, or does the name of the firm, no matter what their exhibit is, act as a factor in inducing you to give them better space?—The name of the firm is a guide generally, unless there are any special circumstances which are usually asked for before we begin to allot.

3017. Would it weigh with you whether a firm was a constant exhibitor, and entitled, therefore, to special consideration?—If I knew them as exhibitors, and knew that they would exhibt properly, of course I should be inclined to give them a better space than if I did not know anything of them.

3018. (*Chairman.*) Supposing you have allotted all the space and some very important applicant comes afterwards, have you known cases in which you have managed to save space by diminishing the gangways and walks so as to get more room for the late applicant?—Never to any great extent.

3019. But it has been done?—Yes, it has been done.

3020. I suppose you have had complaints from the people?—No, I do not think I have ever known complaint about it, because we generally take very great care to give plenty of room.

3021. Supposing you have had a gangway of 8ft. and that is reduced afterwards to 6ft., do not the people on the line of that gangway complain?—I do not think so. We never show them the plan.

3022. (*Mr. Wilson Fox.*) Have you had many complaints from people that they have not been put into the best places?—Yes, constantly.

3023. I suppose anybody not facing a gangway thinks he is in a bad position?—If they are not facing the main avenue they always complain.

3024. (*Chairman.*) My point concerns the great difficulty in giving space when practically it has been all allotted?—We often have to refuse or to decline to take them.

3025. Do you generally refuse, or do you generally try to arrange to squeeze a bit here and there?—Not often. It is generally useless; you cannot do it.

3026. (*Sir Isidore Spielmann.*) At which of these numerous exhibitions that you have been associated with has the British section been most creditable?—At St. Louis, I should think.

3027. There is was the most successful?—Yes.

3028. Were there any other good ones?—Yes, the last Paris Exhibition. I presume you are speaking of the late exhibitions. If you are including the early exhibitions, then I should say that Paris in 1878 was far and away our best year.

3029. May I ask which have been the most discreditable to this country?—I should say our last one—Milan.

3030. You were not associated with Liège, were you?—No, not at all. I have heard enough about it, and I am glad I was not. Liège was hardly an exhibition.

3031. You would say that Paris and St. Louis were the best, and Milan the worst?—Yes.

TENTH DAY.

Thursday, 21st February 1907.

PRESENT:

Sir ALFRED E. BATEMAN, K.C.M.G. (*Chairman*).
Mr. A. WILSON FOX, C.B.
Mr. C. A. HARRIS C.B., C.M.G.
Mr. ALGERNON LAW
Mr. MALCOLM RAMSAY C B

Mr. SIDNEY SPARKES, called in and examined.

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3032. (*Chairman.*) Are you a director of Clayton and Shuttleworth, Limited?—Yes, I am.

3033. You have been there for some years, I suppose?—Yes, I have.

3034. Your firm has exhibited at a good many exhibitions abroad, I think?—Yes, we have at a great many; I think we may say at every one since 1850.

3035. That is, I suppose, at all the principal ones?—At all the principal international exhibitions; that is, at all the international exhibitions as understood by the term.

3036. (*Mr. Malcolm Ramsay.*) What is the business of your firm?—We are agricultural engineers.

3037. (*Chairman.*) Your firm has been in business a very long time, I think?—Yes, for a great many years I think we have been in existence for 60 years.

3038. What is the nature of the goods exhibited by you?—Portable steam engines and threshing machines principally.

3039. Have you had any increase of business in foreign countries which you can attribute to these exhibitions?—Yes, undoubtedly.

3040. Have you ever suffered any disadvantage from having your designs copied?—No, except in the sense which I think we have stated in the answers that we sent in to your formal questions. Undoubtedly it has been the case that Continental competitors of ours have copied our designs. There are one or two notorious cases, and I may mention, in particular, Mr. Heinrich Lanz, of Mannheim, who was originally an agent of ours. He severed his connection with us, got capital, set to work and positively took our engines and threshing machines as his patterns; he had them in his yard and copied them. That does not exactly come from exhibiting at an international exhibition; but still, all our competitors go to these exhibitions, and no one is to say them nay if they are there taking notes and measurements of this, that, and the other. We do not mind that. We say we get a *quid pro quo*, and where we lose on the one hand we gain on the other.

3041. I suppose there is much more competition on the Continent in your business now than there used to be 30 or 40 years ago—Much more. That is particularly the case in Germany. The German manufacturers, as I have stated, are our greatest competitors.

3042. On the other hand, I suppose you have extended your sphere of influence, and you sell now more to the less developed countries, such as Roumania and Russia?—Yes, largely.

3043. I suppose you do that a great deal more than you did?—Yes. I may explain that we have a large establishment in Vienna, employing nearly the same number of hands as we employ at Lincoln. That establishment was started some 40 years ago to enable us to compete more readily with German and other manufacturers. We have recently spent between £300,000 and £400,000 in Vienna in building new shops, extending our facilities, and so on, in order still further to meet the competition.

3044. You manufacture in Vienna, then?—Yes, very largely. I am sorry to tell you that we are transferring, to a very large extent, the manufacture of engines and threshing machines from Lincoln to Vienna, in order to overcome the difficulty of the duties and the cost of the sea and land transport from Lincoln to these different countries—Roumania and others. I am touching upon a debatable point, possibly, but this is one of those cases where undoubtedly Lincoln and the Lincoln workmen are suffering from this transference.

3045. That is a very interesting subject, we know, but we are on exhibitions now?—Yes, I am aware of that. I am only touching upon it *en passant*.

3046. Do you attach much value to the awards you have had at exhibitions?—Yes, as you will understand, from an advertising point of view. We advertise then very largely, and we make a very great point of our large medal boards, as they are called. They are somewhat unique in the trade. We have some hundreds of gold and silver medals represented on a board in a frame. The fact that you have taken the Grand Prix here and the Grand Prix there, and that you have come out at the top at any international exhibition, carries weight, and that is a thing to be advertised. In our answers I think we have mentioned particularly the recent exhibition in Milan.

3047. You got a certain amount of business there?—Yes, we did.

3048. And you have done business since?—Yes, there is no doubt about it, that has already been shown.

3049. In your answers you make a very interesting statement, namely, that you are getting business among the Italian farmers in the Argentine; do you attribute that to the Milan Exhibition?—The Milan Exhibition has given a fillip to the business. We have always done a very large business in the Argentine, and in the Argentine there is a very large number of Italian settlers, Italy being very strongly represented in that country, as I daresay you know. The effect of the Milan Exhibition has undoubtedly been noted there; we have seen it.

3050. Have you been induced to buy to a great extent from British or foreign manufacturers owing to their having exhibited goods?—We have bought from British manufacturers, but not from foreign manufacturers; there has not been that amount of—what shall I say—reciprocity. We have bought from British manufacturers as the result of seeing their exhibits in the various exhibitions. Some of these exhibitions may have been held abroad, and our representatives, myself or others, may have been there and may have seen something from our own country which we liked.

3051. But you have not seen foreign exhibits of sufficient value to induce you to buy their machinery and tools for your particular work?—If we except America, no. With regard to America, we have in many instances seen, appreciated, and bought their machinery. We have bought it rather extensively, too—sawing machinery particularly for our saw mills. Then again the Americans turn out a remarkably good lathe—what is called the turret lathe, which they were the first to introduce—and many other things which we certainly find an advantage. Probably we might not have seen or known of those but for attendance at these exhibitions, where it is sometimes the case that these machines are seen in actual operation.

3052. You have sometimes derived instruction from

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seeing new and economical methods of manufacture, and so on, I understand?—Yes, that is so.

3053. I gather that you have not refrained from exhibiting at these international exhibitions?—No, we have not.

3054. Still, I presume you think that there might be some improvement of the organisation in connection with these exhibitions?—Yes. We think that we are put to an enormous amount of expense, in which we might fairly be assisted by the Government.

3055. In what way should you like to be assisted?—I do not know that we ask for any pecuniary assistance, but there might in many instances, I think, a little more attention given to us, and we might be covered by the wing, if I may say so, of the British Government. I think there should be a little more attention shown to us at times, and that we should not be left entirely to our own resources, as is frequently the case. We know perfectly well when any international exhibition is coming on that we are communicated with from the department of the Government here, and so on; but, as a rule, you find in the end, when you get over there, that you must paddle your own canoe to a very large extent.

3056. Can you specify any particular exhibitions in which the organisation has been better than ordinarily is the case?—I think I may fairly say that in Milan there was a distinct improvement; that, as you know, is the last international exhibition which has been held. There was undoubtedly a distinct improvement there, one that was appreciated by us very much. If that could be continued I do not know that we should have very much more to complain of or very much more to ask for

3057. Was that as regards the placing of your exhibits?—Yes.

3058. And the arrangements for transport?—Quite so. I am also thinking of the general attention which was shown to us. Any little matter which we thought required attention was immediately taken up by those who were responsible, and we found that there was a desire to give attention to us more manifest than it has ever been before.

3059. What was your experience in Paris in 1900?—In Paris in 1900 things were not so good as they were in Milan in 1906, but still, even there, there was an improvement as compared with previous experiences.

3060. Have you formed any idea about the value of a Royal Commission as compared with management by private bodies, such as the London Chamber of Commerce?—No, I cannot say that I have, and I do not know that I have studied that question. I take your question to be, Do I think that a Royal Commission would be preferable to chambers of commerce?

3061. That is the question?—I think possibly it would be so, and that a Royal Commission would be preferable to the working of chambers of commerce.

3062. You are aware, I suppose, that there is no permanent organisation between exhibition and exhibition, and that everything has to be started afresh for each exhibition?—Yes.

3063. I gather that you would like to see some small permanent nucleus established?—That is it—a department. I think that would be distinctly advantageous.

3064. Have you any ideas as to the proper way in which the mercantile community and the manufacturing community should be got into line and interested in an exhibition when it takes place?—So far as we are concerned, taking our section, I do not think there would be any better way of getting at us than through the Agricultural Engineers' Association, as it is called, which has its office in Coleman Street, in the City. There you will find a secretary and council, and everything affecting our trade of agricultural engineers is brought before this Association, and is dealt with. We are all members of it, and we meet from time to time to discuss various things, and even in connection with these exhibitions it is frequently a matter arranged between us. We say: "There is an exhibition coming on at Milan; what shall we do? Shall we go or abstain? What is the feeling? What do you think?" One man will say, "Are you going?" Another man, "We cannot afford to be out of it." The thing is discussed pro and con.; and, as a rule, we arrive at a settlement of the question, and decide that we will or we will not, as the case may be—as a rule, we decide that we will.

3065. Most of the big firms in your line exhibit, do ey not, such as Aveling and Porter, and the Grantham firm, Richard Hornsby and Sons?—Yes, always.

3066. The Leeds people, John Fowler and Co., do too?—Yes. I think you could not have a better illustration of the general desire of the trade to be well to the front than is found in the agricultural show-yards of this country. Go to any show-yard you like of any local county association, and go through the machinery section of that show-yard, and you will find all these firms that you have named represented there, Aveling's with their road rollers and traction engines, Fowler's the same, Burrell's the same, Hornsby the same, and Clayton and Shuttleworth the same—the whole lot of us, there we are. Every now and then there is a sort of feeling at the end of year that shows are an expensive tem, and that the aggregate cost is something enormous. When you include railway carriage, the expense of attendants and various other matters, you can quite understand it amounts to a very big bill. There is a feeling, shall we go on? I daresay if we could get universal action, and everyone would say he would abstain from exhibiting, there might be a shutting up of the whole affair. But there is a certain amount of rivalry. "Clayton's are going to be there, and we shall have to be there." We, on the other hand, say, "Marshall's of Gainsborough will be there, and we cannot afford to keep away.'

3067. Do you prefer to exhibit at a special show, that is, a show which is only in your goods and similar goods; or at a universal exhibition?—I think we should prefer an exhibition of our own goods only, because, in a sense, that concentrates the attendance, and those who are interested in our goods are those only that we expect to be present. If you have a general exhibition, people who are interested in textile machinery, and this, that, and the other, are there also, and you get an enormous crowd; but you get the peo le you want if you have an agricultural machinery exhibition, such as the Germans are thinking of holding at Düsseldorf—they are going to have a big show there, I think it is in May or June, but I am not quite sure which, and it is to be their Royal Show, corresponding to our Royal Agricultural Society's Show.

3068. Then it is not really an international exhibition?—In a sense it is international, because it is open to the whole world.

3069. Are you exhibiting there?—Yes, we are exhibiting there, but in that instance we are doing it through our German agents. We are not directly represented there, but our engines and machines will be exhibited upon the stands of our various agents in that country.

3070. They will be exhibited under the name of your firm, I suppose?—The name of the firm will be on the machinery as the makers of it, but the sign over the stand will be that of Mayfarth and Co., or Zettelmeyer or whatever may be the agent's name—just as in England you see the big signs in the show-yards—and you are able to say that is a Clayton threshing machine, or a Clayton engine or a Clayton this or that. These exhibitors advertise themselves very freely as the agents for the threshing machines and so on of Clayton and Shuttleworth.

3071. Of course they would prefer you doing it through them as agents, to your sending over a special exhibit which would only have "Clayton and Shuttleworth" in big letters on it?—Yes, they would prefer that; but they do not forget to say "You will help us in this, won't you?"—in the expense I mean.

3072. Do they say that to you?—Yes, they do. They say, "We are going to spend a lot of money in sending this machinery of yours to this particular show at Düsseldorf: what do you say about the expense? You will help us a bit, won't you?" So we have to do it.

3073. In that case you do help and divide the expense?—Yes, we help them as far as we possibly can.

3074. Still, I suppose that comes very much cheaper than sending over your own staff and your own machinery?—It may do; but if you get four or five or six agents in the one show-yard, those four or five or six agents will probably have 12 or 14 or 16 sets of threshing machinery, whereas if we were there alone we should be satisfied with perhaps three or four. So it is about as broad as it is long, and the expense to us is as great when we are represented by our agents as it would be if we were there direct.

3075. You rather take the position that you are ready

to go on showing at all big exhibitions?—Yes, undoubtedly.

3076. Whatever the organisation is?—Yes. If we were to know that an international exhibition was to be held, in Rome we will say, or anywhere else—I do not care where it is—we should set to work at once and begin to inquire into it, and say, "We cannot afford to be out of it; we must be there."

3077. I suppose you allow in your costs a certain amount for exhibiting, as you do for other forms of advertising?—Undoubtedly. There is a distinct item for it in the annual balance sheet. Every farthing of expense that we incur in attending these exhibitions and shows is accounted for, and every item is specified in its own particular column, if I may use the expression, so that we know at the end of the year exactly what it has cost us.

3078. Did you exhibit at St. Louis?—No.

3079. Why did you not exhibit there?—Because it is utterly impossible to do trade with America. We cannot pay this duty of 40 per cent. which meets us right straight off the reel.

3080. Then there is such a strong competition there, is there not? You are, of course, aware that on lots of classes of goods our people can pay that 40 per cent., or rather they can let the American consumer pay that money, and still send their goods there?—But we cannot. Of course, it is a fact that the American competition is very strong, in our Colonies particularly so; and we find it also in other parts of the world. American competition in the Argentine is very severe, and is becoming more so every year. In other countries it is the same.

3081. In the way of freights you are better off in South America than the manufacturers in the States are, are you not?—Yes, we are, rather.

3082. Do you exhibit at the Colonial exhibitions, such as those in Australia and the recent one in New Zealand?—We were not directly represented at the New Zealand Exhibition at Christchurch.

3083. Why did you not exhibit there?—We preferred in this instance to do as we shall do at Düsseldorf, namely, exhibit through our agents.

3084. Have you an agent in New Zealand then?—We have agents all over the world, and at this exhibition at Christchurch we should be represented by our agents, Reid and Gray, of Dunedin, and a firm from Canterbury, and another from Wellington, and so on.

3085. Do you think that the awards at these exhibitions are fairly given?—That is a question.

3086. What is your opinion upon it?—We have no reason to complain—none whatever. There is, as you know, a *prestige* belonging to the name of Clayton and Shuttleworth It is a very old firm, and it is a firm that has a very high standing—I say it with all modesty and all reserve—for the excellent quality of its manufactures. Its engines and threshing machines, and so on, are known all over the world, and they have a name, and a fame, and a reputation. I think, perhaps, it is a little bit bombastic, but the jury, so-called, at these Continental exhibitions feel "Really and truly, we cannot pass them by; they are so well known that it would be a slight." But there is really in one sense not much merit due to the award—not as would be the case if an actual trial of the articles exhibited were to be made.

3087. You think they go by the *prestige* of the exhibitor to a certain extent?—Yes, they do—to a very large extent.

3088. And by the size of his works, and the long time that he has been there?—To a very large extent; and that is why I had a little hesitation in answering your question I am afraid that it is possible that the smaller fry may be frequently overlooked, and that the jury do not take the time and the trouble to inquire into, and to ascertain exactly from the representatives of the firm concerned what are the merits of the particular article exhibited.

3089. (*Mr. Wilson Fox.*) Do you want a practical test? Do you think that would be better?—A practical test is undoubtedly the only means of arriving at the qualifications.

3090. But it is not possible to have it, is it?—No, it is not possible. Therefore I say that the awards are more or less superficial and therefore valueless except from the advertising point of view. The fact that you have obtained the highest award that it is possible for the jury to give you carries this with it—the general public do not stop to inquire under what circumstances this award was given, but they say "They have got an award, and, of course, if that is so, they must be right at the top of the tree."

3091. (*Chairman.*) And you think that may come rather hard on some of the smaller manufacturers?—Yes, I do think so. As I said just now, the merits of the particular article may not be sufficiently investigated by the jury, and so the awards by the jury are more or less a farce.

3092. If I exhibit a cat or a dog at a show, the prizes are given according to the merits of that cat or that dog?—That is so.

3093. They are not given according to who I am, nor because I am always exhibiting dogs and cats?—No, I see what you mean exactly. You may go on and take a distiller or whatever it may be; in his case the jury may go to the different stalls and taste this, and taste that, and taste the other, and then there is a certain amount of practical test given to the article; but with machinery it is somewhat different.

3094. It would be very difficult, I suppose, to test machinery?—It would occupy a large amount of time and it would be a very expensive process. Perhaps you may remember that at the Great Exhibition of 1851 this was actually done. In our own trade engines and threshing machines were actually tested and tried, weeks of trial being given.

3095. In Hyde Park?—In Hyde Park. The portable steam engine and threshing machine in that year were novelties, they were only just coming into existence. The flail then was gradually being ousted in favour of mechanical action.

3096. For many years you have not had any testing of the machinery, have you?—No, not for many years. The practice of the Royal Agricultural Society of England was for many years to have most exhaustive tests.

3097. But that has been given up, has it?—Yes, it has been given up to a very large extent. Now and again they will have tests. They divide the different manufactures into sections, and this year they are going to deal specially with a certain class of machinery, I really forget what it is; I ought to know, but it has gone from my mind, and at all events it does not interest us, as it is not in our line. We have not had a trial of steam engines and threshing machines for many years.

3098. If there is no trial the result is left to reputation a great deal?—To a very large extent that is so. The Jury will be satisfied by the name, "This is Clayton and Shuttleworth," "This is Marshall's," "This is Ruston, Proctor and Co.," "This is Ransome's," or whoever it may be.

3099. I suppose you are not so much dependent upon the decoration of your court or upon the position you have assigned to you as other manufacturers are? You take up a large space in an exhibition, of course?—Yes, we generally make a good display.

3100. You attach importance to that, do you?—Undoubtedly.

3101. Have you been fairly treated in most of these exhibitions as regards space?—Yes, we have nothing to complain of in this sense, because the more space we apply for the more we pay. It is to the advantage of the founders of the exhibition to give us as much space as possible, because it means so much increase to their income.

3102. And are you content to pay for that space?—Yes, up to a certain limit. We do not do anything extravagant.

3103. About transport, you get reduced rates from the railway companies, do you not?—Yes, we do; and there comes in a point. That is where we have to thank the authorities in connection with the Milan Exhibition. Pressure was brought to bear upon the Italian Government to forego the duties in this particular instance, and to give us facilities in regard to transport over their railways, and so on. We had undoubted advantages there—not more than we think we deserved, you understand, but still it was very nice. It is appreciated certainly by us when we find that there is this consideration shown. Of course, it was made a condition that if the articles were sold in the country then the duty should be paid. We do not object to that at all.

3104. That is quite fair, is it not?—Yes, that is perfectly fair, and we do not object to that in any way.

3105. (*Mr. Malcolm Ramsay.*) You exhibit at

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foreign exhibitions partly because you hope to get fresh orders and partly because you want to retain your position; is that not so?—Yes.

3106. Which consideration has the greater weight?—I do not know; I think it would be about equal, but to maintain our position is, of course, a very important point. If you are no going forward you are going backward, and you must be always to the front. It would be very disappointing to one's *clientèle* if they went to an exhibition and found that their old friends Clayton and Shuttleworth were not present.

3107. Supposing you could eliminate that consideration, and that you were so absolutely established that nothing could take away trade from you, would you still think it worth your while to go to an exhibition for the sake of foreign orders?—No, certainly not; there would be no inducement.

3108. That is to say, the number of foreign orders would not be a sufficient inducement to take you to these exhibitions?—You are dividing the one from the other now; I thought you were still coupling the two.

3109. I say, excluding the question of maintaining your *prestige*, would the prospective trade abroad be a sufficient inducement for you to go and exhibit?—It might be so. Might I be allowed to say that possibly a great deal would depend upon the state of the order books at the time. If we were very full of work, we should say, "Really it is not a bit of use our going over there to show and cultivate more trade, because if we get it we could not deal with it." It very frequently is the case that we are so full up that we cannot take orders.

3110. I do not know whether you will be able to answer this question, but I should like to know whether in your opinion the trade that you get from foreign countries by exhibiting abroad is really trade which has not previously been had by any English firm; I mean, are you getting fresh orders from abroad, or are you diverting orders from one of your British competitors to yourselves?—I do not think we are diverting orders from our British competitors to ourselves.

3111. It is a general accession of business then?—Yes.

3112. And a genuine increase of our export trade?—Undoubtedly.

3113. It is not a diversion?—No, it is not. I fully believe that it is, as you say, a genuine increase.

3114. As regards the question of Government grants, in considering whether you will go to a foreign exhibition do you attach much importance to whether or not the British Government is participating officially in the exhibition?—Yes, we do attach considerable importance to the privilege of having the British Government at our backs, as it were.

3115. Do you value it because it gives you a greater lever if there is any dispute?—Exactly so.

3116. But you do not attach so much importance to the question whether you will get any direct pecuniary benefit out of any grant that may be given?—No; that is another question altogether with us. When we have the support of the British Government we have, as it were, the machinery of that Government in the particular spot at which the exhibition is being held more or less at our command, and we have a greater right, as it were, to appeal to the representatives of the British Government in that particular city or town or district. We feel that, and we have confidence in relying on their support, and so on.

3117. But you do not make any claim that the Government should pay any direct share of your expenses, do you?—No, we do not ask that at all. If they thought well to do it, of course, we should never refuse.

3118. Have you found as a matter of practical experience that you have done better at exhibitions where there has been a Royal Commission than at exhibitions where there has been some other form of organisation?—I cannot say that. I could not answer that question.

3119. You mentioned Milan just now. The work there was done by a committee of the London Chamber of Commerce, who were entrusted with the grant, was it not?—Yes, that was so.

3120. You have said that the organisation there was more satisfactory to you?—It was, for some reason, but I cannot tell you why.

3121. Have you ever taken part in a collective exhibit—I mean by that, a general exhibit of the agricultural machine industry as a whole, to which you might contribute one or two machines only, instead of having your own stand with a lot of your own machines?—Never; we have always had our own independent exhibit. I understand your question to be, have you, Clayton and Shuttleworth, ever joined Marshalls, Ransomes, Rustons, and others in a general collective exhibit?

3122. Yes?—Never. You mean by that, too, do you not, that the expenses of the exhibit individually would be lessened by there being one or two or three representatives for the collective exhibit instead of one for each particular firm?

3123. Yes?—That would not answer in our business.

3124. Lately at St. Louis, and I think at Paris too, there were a great many collective exhibits. For instance, there was one of sporting guns at St. Louis to which various gunmakers contributed exhibits?—There have been cases in which we have sent small exhibits to some comparatively small exhibition, where a man has been engaged to look after the exhibit, not so much as a representative and not so much as a salesman, but as a general supervisor and general overseer to look after the things and see that nothing is damaged. It has been felt in those cases that really and truly we had better make a show of a few of our articles, and that whatever there may be in the way of business will come to us afterwards through the post.

3125. Could you tell the Committee what it has cost you to exhibit at any big exhibition within the last 15 years; take, for instance, the two you have specially named—the Paris Exhibition of 1900, and the Milan Exhibition last year?—Certainly, I will with pleasure let you have the total cost, including attendants and everything else. I will either add it to this answer when I get the proof for correction, or I will send it up to Mr. Wintour, the Secretary.

3126. (*Mr. Harris.*) Do you think that if the Government were to withdraw from all participation in exhibitions, and were to let it be known that they withdrew from all participation in exhibitions, you would arrive at a stage where nobody would exhibit?—I do not think that it would be so. If the British Government were to withdraw as you say altogether, we should deplore the fact very much indeed, but I do not say that it would be the means entirely of stopping our exhibiting—if that is the question.

3127. Then it would not help you to what I rather gathered was an idea you had in your mind, namely, getting rid of the heavy expense which is forced upon you by trade rivalry?—I have never intended that the British Government should take upon themselves the entire expense of these exhibits; and I do not say that.

3128. I did not understand you to do so. If the British Government said: "We do not think that exhibitions are a very good thing for trade, and it is only drawing people on to get awards," do you think there would be a fair chance of people recognising that and dropping out? Would your own firm, for instance?—There are two points—the gaining of an award is one, and the orders booked is another. Supposing it were to be decided that for the future there was to be no awards, and we are going to convert these international exhibitions into a market, then it is clear that you would have a collection of machinery which had been got together for the purpose of sale. That is the case largely now. Take the Royal Agricultural Society of England. There are no awards given, except now and again a silver medal is given for some novelty, or something of the kind. The Royal Agricultural Society's shows to-day are nothing more nor less than a gathering together of marketable commodities. You bring the articles to the public and the public to the articles, you understand, and the Royal Agricultural Society is looked upon now as a means of securing orders and of introducing your goods to probable buyers or prospective purchasers. We do not go to the Royal Agricultural Society's shows any longer with a view of obtaining awards. We take our goods, exhibit them, and bring them before the thousands of people who attend the show in the hope that we are going, if not at the moment, then afterwards, to obtain orders as the result of the inspection which has taken place by the visitors to the show.

3129. I gather that you look a an exhibition of any

kind as a mere advertising medium?—To a very large extent that is so.

3130. And as an agency medium?—Yes, exactly, and we go, of course, with a view to obtaining orders. A man representing us will go, say, to the Dublin Show, which comes on next month or the month after, and if he comes home with his pocket-book full of orders he is patted on the back and he is a very good fellow, and we say we have done very well indeed at the Dublin Show, or we have done very well indeed at the Exeter Show, or whatever show it may be. Whether it is satisfactory depends on the amount of business done.

3131. How can you reconcile what you state about the agricultural machinery firms and their readiness to exhibit everywhere with the distinct reluctance which we have heard about on the part of most merchants to be present at any exhibition at all? What is there peculiar in your business which makes an exhibition so very valuable to you?—There is a distinction between agricultural machinery and, we will say, lathes and drilling machines and shop tools generally. Agricultural machinery is associated with out-door work—I am speaking now of the agricultural showyards of this country. The open showyard identifies itself with our business. Our goods are out in the open and they are goods that are used in the open, and the farmers and others who are buyers from us are very fond of attending these exhibitions, to which they go for a double purpose.

3132. You are thinking now of the agricultural exhibitions?—I am.

3133. But I am thinking more of the exhibitions abroad. Can you apply what you are saying to the exhibitions abroad?—I see what you mean; you are thinking of an international exhibition, a show like the Paris Exhibition, and so on.

3134. An international exhibition is what I have in my mind. I understood you to say that your own firm, and firms in the same line of business, were rather treading on one another's heels at such international exhibitions?—Quite true.

3135. As well as at home?—Quite true.

3136. Can you reconcile that anxiety to show on their part with the distinct reluctance on the part of other manufacturers and traders in this country to rush into exhibitions? What is the peculiarity in your business?—I think perhaps the peculiarity may be this: We agricultural machinery manufacturers in this country are so accustomed to these exhibitions—they go on all through the summer and we are constantly at it—that it has become part and parcel of our business and part and parcel of our nature. That practice is not associated with the other manufacturers that you speak of, and they are not in the habit of going almost week after week, as we do during the season, from one showyard to another. I am speaking generally, because we are rather conservative in that way, and we do not go to so many of the local shows as other makers do; but still it is part and parcel of our nature, and it is part and parcel of our business to be always to the front at these exhibitions, and, therefore, if there is an international exhibition, it is, as it were, second nature to us to go to it, as we are so accustomed to these things.

3137. When you go to an international exhibition, can you say whether you take more orders from the English and Colonial visitors at the exhibition or from the people in the country—I mean the nationals—where the exhibition is held?—That is a difficult question to answer. It would depend a great deal upon the class of exhibition and upon the character of the exhibition. If the exhibition is attracting to it a large number of colonists and a large number of English people, in all probability the orders from the colonists and our own countrymen would be as great as, if not greater than, the orders from the inhabitants of the district in which the exhibition is held. On the contrary, if it is only a small potato, if I may use that term, it would only be attended by the local population, and therefore the orders would come from local purchasers.

3138. I think you could not tell Mr. Ramsay why you found the Milan Exhibition so much better organised than the others?—No, I could not.

3139. May I ask you whether possibly there has been a progressive improvement from exhibition to exhibition in the organisation? You suggested that it was better in Paris in 1900, and better still in Milan; throwing back further, do you think, speaking broadly, that experience has produced better organisation on the whole?—I think it is undoubtedly the case that experience has resulted in better organisation. The evils of the previous exhibitions have been prominently brought forward, they have been seen and recognised, and therefore, they, have been avoided as time went on.

3140. Do you think that on the whole you gain as much from taking hints from foreign exhibitors in the same class, and exhibiting side by side with you, as you have lost through your goods being copied, as you explained, in Germany and elsewhere?—I should think as nearly as I can say, answering your question roughly, that it is about equal, and that the one has balanced the other.

3141. You have, in fact, taken hints?—We have taken hints undoubtedly.

3142. For instance, from the American goods?—Exactly so. We have taken many things.

3143. You would not buy the American saw you mentioned without having taken a hint or two out of it for your own manufactures?—That is quite true.

3144. (*Mr. Wilson Fox.*) With reference to the expenditure which you make from time to time in sending exhibits to foreign exhibitions, I assume, by your doing that, you think you are more likely to get foreign orders in that way than by spending a similar sum on travellers?—Undoubtedly.

3145. It is the exhibition of your machinery which attracts buyers?—Yes, that is it. I put it to you—a traveller calls upon you, and he is talking to you for some considerable time, extolling the virtue of some article that he has to sell, but if the man could show you the thing itself you would be far more satisfied.

3146. That is what I am working up to. That is a reason for agricultural machinery being shown more at foreign exhibitions than certain other commodities; because a traveller cannot take round your machines, and the only way you have of showing your machines on the Continent is by exhibiting at these big international exhibitions?—You have exactly expressed it. The traveller in our line cannot very well do as the Manchester travellers and other travellers do, that is, go round with 3 cwt. or 4 cwt. of samples. A man cannot very well take a portable engine or a threshing machine with him. An exhibition affords the only opportunity that we have of actually bringing our wares to the notice of would-be purchasers, or prospective purchasers.

3147. Is that not the main reason why manufacturers of agricultural machinery show?—That is a splendid explanation; it conveys more than I have been able to do in the answers that I have given to the questions.

3148. With reference to agricultural shows in England, of course there you have got your possible buyers coming to see your machines?—Quite so. We have the double advantage there that the farmers who are the buyers of our machinery are attracted to these exhibitions, not alone on account of the machinery, but to see the cattle, the sheep, the pigs the horses, and various other things which are always a source of great attraction to the farmers.

3149. But they are men who are interested in agricultural machinery?—Unquestionably.

3150. You say you do not show in America?—We never have done.

3151. Do you send travellers there?—No, never. We never make any effort whatever in that direction.

3152. Do you think that it is impossible to do business there?—Absolutely.

3153. With reference to the machinery exhibits—I am not asking about your personal exhibits, but I am taking generally the British exhibits of agricultural machinery at these large international exhibitions—do you think that they compare favourably with the exhibits of foreign nations in the same classes of goods?—In design and in quality of manufacture I presume you mean.

3154. I do?—Unquestionably. To-day Great Britain stands a long way ahead of all other countries for the excellent quality of her manufactures in this particular line of business.

3155. When people want to buy first-class machines abroad, machines that will last, do they buy English ones?—They do to a very large extent.

3156. By preference?—Yes, they do. If time allowed and it were of sufficient interest to you, I could give you

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many instances of that kind, where, notwithstanding the strong patriotic feeling which exists amongst the German farmers and the great desire that they have to support their own industries, they admit that the English-made article is superior to-day to the German-made article. and will give, as they must do, more for the English-made article than for the German.

3157. Can you get those machines of yours into the European countries, notwithstanding the tariffs?—Yes, we do; but not to anything like the same extent that we did prior to the establishment of these manufactories. Our trade is falling off very materially. You know it is a comparatively small matter to rely upon this preference for the superior-made article. Many men, thoroughly understanding what they are doing, will properly be influenced by the quality of the article, but others, again, see nothing but the price—the £. s. d.—and whether they get the same quality never occurs to them at all. They say, "We can buy an engine and a threshing-machine for so many marks less from the German makers than we can from the English, and then we have a little bias, a little feeling, towards our own manufacturer," and so on. It is a fact that our German trade is falling off year by year to a very serious extent.

3158. Does it pay you better to show an article of the very best quality in order to attract the best buyers or to show a second-rate article in order to attract the second-class buyers?—We decided years ago never to attempt to cater for the cheap market, but to retain our reputation for high-class quality. Although I speak rather dolefully of our German trade, I am thankful to say that in other parts of the world we are always finding markets to replace what we lose in Germany.

3159. Is it not rather a characteristic of other British commercial men that they rather look to making the best things, leaving other countries to make what is called sometimes "cheap-jack" things?—Quite so—German made articles.

3160. (*Mr. Harris.*) You speak very strongly about the great superiority of British-made goods in your particular line; in saying that, have you the American goods in mind also?—Yes.

3161. Do you claim that the British-made goods beat the American goods in quality?—Unquestionably so. But bear in mind that the Americans make up for their want of quality by very much lower prices. The Americans will say "we know perfectly well that this particular set of threshing tackle that we are offering you will not last nearly as long as the English; that we admit; but is it not better that you should buy this set of tackle and that you should run it for three or four or five years and then, instead of spending money in repairing that tackle, you should throw it on the scrap heap and buy a new one, because in buying a new one you will get all the latest improvements embodied in the new purchase." That is the doctrine with them altogether. They do not make any scruple about it. They say "We know very well our boiler plates are an eighth of an inch less in thickness than the English, and this, that, and the other, and that the brasses we put in are not brasses at all, but simply white metal poured in; but it answers its purpose for the time."

3162. (*Mr. Wilson Fox.*) Do you make ploughs?—No.

3163. (*Chairman.*) Not steam-ploughs?—No, we do not make any ploughing tackle at all. We make the traction engines which are used for hauling ploughs, but we do not make Fowler's double-engine plant, for instance.

3164. (*Mr. Algernon Law.*) Do you make reapers and binders?—No.

3165. In the statement that you have sent in I do not see that you have put down any German exhibition at which you have exhibited, but there have been some local exhibitions in Germany; have you ever sent there?—The questions sent down to us referred, I think, to international exhibitions as we understood them.

3166. Have you not sent then to any German exhibitions?—Yes, we have. Are you referring specially to agricultural exhibitions?

3167. I am referring to any exhibition at which you have had an opportunity of showing your machines?—We have sent many times; but your formal question on this point I think refers to international exhibitions, something on the lines of our exhibitions of 1851, 1862 and so on.

3168. I do not know whether you have mentioned your trade in Russia. Have you heard it said that the Americans, and I think the Germans, too, but I am not certain of the Germans, send men out with machines to show the people how to work them, so that if any small breakage occurs they can repair them?—Yes.

3169. Then they also standardise all the parts; so there is an advantage there?—Yes, there is. That is done by us as well. We standardise every part. It is a most elaborate system that we have.

3170. Is it a new practice on your part, or an old one.—It is quite old.

3171. Do you send men out to show how the machines are worked?—Certainly. If we do not do it ourselves, it is done by our agents.

3172. In Russia they might be German agents, I suppose?—Most of the agents we have in Russia are of German nationality, with two or three exceptions. We have two or three English firms in Russia, but the German traders predominate; I think there is no doubt about that.

3173. If you send a machine to an exhibition a farmer cannot see it at work, can he?—No.

3174. So it would seem, would it not, that the more advantageous way of pushing your trade in a foreign country would be to send a machine round the agricultural districts with men who could speak the language and who could show how the machines could be worked, rather than to send the machines to an exhibition where they would be stationary?—That has been done in the past frequently; engines and threshing machines have been sent into a district and taken from place to place. But that was many years ago, and now we rely on that work being done for us by our district agents, who, in the majority of instances, are engineers with large establishments and a large body of workmen, all of whom, or nearly all of whom, are as capable of showing the working of an engine and threshing machine as one of our own men from our own place, through constant use and through constant experience. Going back to your question about standardising, the standardising of the parts of a threshing machine, or the parts of a portable engine, or any other engine, is as old as the hills with us—in fact it is carried to such an extent that I think I may safely say that a heap of the component parts of a threshing machine may be put upon the floor and from that heap the parts may be taken to construct the entire machine. That is what you mean, do you not.

3175. Yes. I do not know whether you have been asked whether you would like the Government to bear any part of the expense?—Yes, that question has been put to me. I do not look forward to that entirely, but I made the joke that we should certainly not decline any assistance that might be offered.

3176. But it is still worth your while to do it without such assistance?—Certainly.

3177. (*Chairman.*) Have you exhibited at any exhibition in Russia?—Yes, we exhibited at Moscow.

3178. I suppose that led to business?—Yes, unquestionably. There is not a shadow of doubt in my mind about the benefit of exhibiting at the various exhibitions which are named in my list.

3179. The Moscow Exhibition was held in 1872, which is a longish time ago?—Exactly; but then, you see, I do not think there has been another exhibition in Russia since 1872—at least I am not conscious of one.

3180. Anyhow you do a considerable business in Russia, I think?—We do a very large business indeed there.

3181. And in Siberia?—We are gradually getting into Siberia. Our portable engines are being sold largely just now from Vladivostock for that part of the country.

3182. Are they landed at Vladivostock?—Yes, they are shipped to that place, and our agents have a large depôt there in which these engines are kept in stock.

3182A. You are not manufacturing in Russia yet, are you?—No. The great portion of our manufacturing for Russia is done in Vienna, but even now we do supply a large number of engines and threshing machines direct from England to Russia.

3182B. Have you ever thought of manufacturing in Canada?—No. We are about the only firm in the trade with a second establishment such as ours in Vienna.

ELEVENTH DAY.

Thursday, 28th February 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Mr. U. F. Wintour (*Secretary*).

Mr. Edmund Harry Lloyd, called, and examined.

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3183. (*Chairman.*) What profession are you?—My profession, I suppose, is practically connected with the organisation of exhibitions.

3184. I see that you have been concerned with a great many exhibitions from 1878 to the present time?—Yes.

3185. You have held various appointments, and in the last two or three exhibitions you seem to have held some important posts?—Yes.

3186. You were general-superintendent for the Royal Commission at the exhibition at St. Louis?—Yes.

3187. And you are assistant manager of the present Dublin Exhibition?—Yes.

3188. Then you managed the Wolverhampton Exhibition in 1902?—Yes.

3189. And you were superintendent of the industrial section of the Paris Exhibition in 1900?—Yes.

3190. You have seen the formal questions that we have prepared, and I understand that on Questions 2, 3, and 4 you do not desire to make any observations?—Being in Dublin, I have, unfortunately, not been able to look up the statistics that are necessary for the purpose of answering those questions; and I think they all have really been covered by the evidence that has been given by my chiefs at most of the other exhibitions—for instance, Sir Henry Wood, Sir Herbert Jekyll, and Sir Charles Watson must have covered those questions.

3191. Then we come to Question 5. Do you consider that the direct commercial results obtained by the official participation of this country in international exhibitions have been such as to warrant His Majesty's Government in giving grants for the organisation of British exhibits in future?—My experience has taught me that to expect a direct result from an exhibition is almost impossible, and that the results to firms and manufacturers exhibiting will come on possibly three or four years' later. It is absolutely the same as an advertisement; you cannot advertise and then expect to get immediate results.

3192. But in this case sales might result at the time, might they not?—Not in a number of the cases—not in most cases, I should say. Sales result at the time in the case of a small manufacturer of jewellery or anything like that, but for machinery and other big manufactures, the exhibitor will have to wait possibly two or three years to get any direct result from it.

3193. Are there not orders for machinery which result from exhibiting?—Not on the spot.

3194. That is not the case according to your experience?—According to my experience there are not a large number. They would get a bigger result a year or two years after the exhibition than they would immediately.

3195. Do you know of results that have come a year or two after exhibitions?—Yes, I have known of several. I know that after the Chicago Exhibition there were one or two firms who did practically no business at the exhibition with the exception of seeing people and showing their manufactures to them, and yet for two or three years they were continually receiving orders resulting from their exhibiting at that exhibition.

3196. In what lines were they?—I can mention principally saddlery.

3197. Are you referring to sales in the United States?—Yes, but they did not sell anything at the time, practically.

3198. Did they get orders in the United States?—They got orders and are still getting orders from the United States through their exhibit in Chicago.

3199. I suppose that would be in very high-class goods?—Yes.

3200. You are aware, of course, that there is a very high duty on those things in the States?—Yes, and this is a high-class article.

3201. The duty is 40 or 50 per cent., I think?—Yes, it is.

3202. Can you say the same of any other lines that you remember?—No, there is no special line I can mention except that. I happened to know that, because I know the partners of the firms, and they have told me this. I have known of cases where even as far back as the Inventions Exhibitions in 1885 different people have written to me to say that they have seen something, and will I lend them my catalogue to look it out, so that they can order some similar goods.

3203. Then you have known several cases?—Yes, several.

3204. You have had a very large experience, and so you probably would know of a good many cases?—Yes. At one exhibition you see an exhibitor, and you may possibly see the same man three or four years after, and then you begin to learn of the results that he has obtained from the exhibition.

3205. In reference to our next question, whether you consider that equally satisfactory results could have been obtained by private enterprise, I understand that you do not think that as good results could have been obtained by private enterprise?—No, I do not.

3206. Do you mean that in those cases it is official organisation that has been wanted, or did they want money?—Both are wanted really. Exhibitions which are simply run by private enterprise, like those at the Agricultural Hall, always resolve themselves in the end into practically nothing more nor less than a bazaar. If you have not the money at your back to do it, you cannot keep up a proper exhibition, if I may say so.

3207. But surely a special exhibition, such as the Electrical Exhibition at Olympia, last year I think it was, which was run by private enterprise, you would not call a bazaar, would you, exactly?—I did not see it; but private exhibitions generally do become that. I am speaking, of course, of long-term exhibitions—that is, of exhibitions running for six months.

3208. You do not refer to the exhibition of specialities, such as motors, do you?—I do not refer to what I may call the trade exhibitions, because no doubt they do a lot of good for a week.

3209. They can be run by private enterprise, then?—They can; but not a long-period exhibition, I think.

3210. When you come to a general exhibition, then you think you want an official organisation?—In the case of a general exhibition or an international exhi-

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bition you want the official organisation, and the backing and the backbone that is given by the Government in those cases. In the case of Glasgow, for instance, Glasgow was a very great success, and that had its backbone not from the Government, but from the town itself.

3211. I thought Glasgow was an excellently-arranged exhibition?—It was an exceedingly good exhibition, but it had the support of the town from the start to the finish. You could hardly call it a private enterprise.

3212. Would not most exhibitions have the support of the town in which they were held?—I should say so.

3213. So that some municipal organisation would suffice?—Some municipal organisation would do in the case of towns.

3214. That is in the case of the smaller exhibitions?—In the case of the smaller exhibitions I think it would.

3215. You were not at the Milan Exhibition, I think?—I was not at Milan.

3216. Nor at the Brussels Exhibition of 1897?—That is so. In 1897 I was at the Yachting and Fisheries Exhibition at the Imperial Institute.

3217. You have a high opinion, I suppose, of the capacity of business men to organise?—Certainly I have.

3218. But you think they want some help from some official authority?—They want some authority behind them, because, as a rule, exhibitors will not go into an exhibition if it is simply got up by a committee of gentlemen. If they can see that they have Government support and Government backing, then you will find that a number of them will go into it.

3219. That is as regards getting the people to exhibit?—Yes; and, of course, that is really the first step.

3220. Now as regards the accommodation and the facilities offered. Are you satisfied with what has been done by the organisations in the exhibitions you have been connected with?—The great trouble with nearly the whole of them has been that there has not been a sufficient grant to allow the Commission to assist exhibitors in the way that they might have done.

3221. Take the Paris Exhibition, which you were connected with: were there not complaints by people to the effect that their space was insufficient or that their space was not convenient?—Yes, there were. that will happen at all exhibitions. It is a difficulty that cannot be met really.

3222. We have had several criticisms on the management at Paris as regards the allotment of space and the difficulty of getting any remedy for grievances, and so on?—It really is a case that cannot be met. You only have a certain amount of space to fill, and a certain number of people to put into it. I should explain that every exhibitor expects the best position, and this is obviously impossible, and creates a grievance in the minds of some exhibitors, which it is impossible to remove.

3223. At Paris do you think we were fairly treated by the French authorities?—No, I do not.

3224. Was that for political reasons?—It was certainly for political reasons to a great extent. It was at the time of the Dreyfus business.

3225. Do you think that we were worse treated than, say, the United States?—I think so.

3226. Do you think that everything was done by the British Commission that could be done for the exhibitors?—Everything that was possible—everything.

3227. And that they were able to make their complaints heard?—Certainly.

3228. I think you do not suggest any improvements in the organisation of exhibitions, except that you would like to see a larger sum allotted by the Treasury?—I should like to see a larger sum given, in order to enable the Commission to assist exhibitors more. For instance, if the grant were sufficient to enable you to pay their carriage, or some proportion of it, to help them, I think it would be advisable.

3229. Would you make them pay for space?—No, I should not.

3230. Would you not charge them at all for it?—I would not charge them for space except in cases where the Commission itself had to pay for space. In all the foreign exhibitions space is generally given to the Government or the Royal Commission free, and I think if it is given to the Royal Commission free, the Commission, or whatever body it is, should allot it free to the exhibitors.

3231. And you would not charge them for carriage?—Not if the grant were sufficient.

3232. Then there is a large expense for decorating?—Yes, there is.

3233. Would you not charge for that?—No. I think that the general decoration of the section or sections should all be carried out by the Commission.

3234. Do you think that the British Government should pay for all that?—I do.

3235. So that the exhibitor would pay for very little more than for having some agent to represent him?—Certainly.

3236. And he for that would get a very good advertisement?—Yes. It really does cost exhibitors a large amount of money to show. They get the advantage, of course, but I am looking at it more from the point of view of trade generally, and from the point of view of what has been done by the majority of foreign countries. Germany, for instance, will do that.

3237. Is it not done under conditions by Germany?—I do not think they have any condition, except that exhibitors shall supply their manufactures. The exhibits are sent over free, and are arranged free, and the whole of the exhibition is practically run by the German Government. But they they have unlimited money at their back.

3238. Are you well acquainted with the German system?—Fairly well, I think, as it has appeared at different exhibitions.

3239. Are you also acquainted with the system of collective exhibits?—Yes. We had some collective exhibits at St. Louis. That was the first time that it had been done in connection with any British Commission to the extent that it was done there.

3240. Do you think that that gave satisfaction?—I think it did certainly, especially in the chemical section, which was the principal collection of collective exhibits there.

3241. That was one of the best trade sections, was it not?—Yes.

3242. Do you know the French system?—The French system is practically the same as we adopted for St. Louis—that is to say, the exhibitor lends his goods, only they make the exhibitor pay a sum towards the decorations, show cases, etc. The Government does not always support that permanent French Committee.

3243. By the French Committee, do you mean the society to which they pay a subscription?—No. There is a special Committee in Paris, which takes up exhibition work for the smaller exhibitions, such as the Glasgow Exhibition, for instance. Very often all the work is taken out of their hands by the Government itself; in fact, it is one of their articles of association that if the Government like to step in and to grant money it takes up the whole of the organisation of this Committee.

3244. That is only for the more important exhibitions, I take it?—It is only for the important international exhibitions. The small exhibitions are generally run by this Committee.

3245. Who pays the expenses of that?—The exhibitor himself. The Committee charge the exhibitors so much for their space, and so much for the decorations, and other expenses.

3246. Have you had anything to do with exhibitions managed by the London Chamber of Commerce?—No, never.

3247. I see that you had something to do with the Chicago Exhibition?—Yes; there was a Royal Commission for Chicago.

3248. That is true; there was a Royal Commission, but it was chiefly connected with the Society of Arts, I think?—The Council of the Society of Arts was constituted a Royal Commission for the purpose.

3249. What was your experience at Chicago? Was it

a good British exhibit?—It was not a really good representative exhibit. The same difficulty was experienced there that we had at St. Louis. It was a case, first of all, of the tariff. People would not show there because they thought they could not do any business. Then the political relations between England and the United States were not quite pleasant at the time.

3250. There are two other points I want your opinion on. Have you had anything to do with the awards at exhibitions?—Yes, a lot.

3251. Do you think that, as a rule, they have been satisfactorily given?—No, I do not, speaking for myself.

3252. Why?—I think in the giving of awards there are all sorts of influences that are at work, and that the tests are not absolutely fair and right.

3253. What tests?—The tests of quality, and that sort of thing. I think they are not absolutely fair.

3254. Is that because they go by the reputation of the exhibiting firm too much?—I do not think it is that altogether. I think it is more, if I may say so, that some member of the jury has a friend for whom he wants to get a special award, or that some agent has an interest in getting awards for a firm. In this connection I do not refer to Brtish jurors.

3255. You think it is not quite fairly done, in fact?—I think it is not quite fairly done; I am certain of that in Chicago. At St. Louis it certainly was better done.

3256. Do you think the British exhibitors have come off worse as compared with the foreign exhibitors?—I do not think that at all. I think they have been treated about the same all round.

3257. You think they have got their share?—Yes. But I would not like to say, even with the British exhibitors, that it had all been got in fair competition.

3258. In spite of that would you keep to the system of awards?—No, I should not.

3259. Would you give it up, then?—Yes, I would give it up.

3260. Would that not prevent people from exhibiting?—I do not think so now. I think that the idea of awards of medals at the different exhibitions has died out to a great extent.

3261. We have had it from several firms that they still attach great importance to the awards?—You will find that with a few firms, but not with a large number. The difficulty is that you cannot confine the awards absolutely to manufacturers; that is the trouble.

3262. To manufacturers as compared with what—agents?—As compared with agents or traders who go to these exhibitions. Then the tests of the goods are not considered up to date.

3263. Another question I should like your opinion upon is about the pavilions at Chicago, St. Louis, and Paris; do you think they were worth the very large expense incurred in putting them up?—Do you mean in putting up the special pavilion for the officers of the Commission?

3264. Yes, at an expenditure of £30,000, and that sort of thing?—The pavilion at Paris was really an exhibiting place, and not an office, because pictures were shown in that.

3265. Do you think it was worth the very large expenditure that was made on it?—I am afraid I do not; but it was a thing that it was necessary to do, or rather that it was politic to do, because every other country was doing the same.

3266. At Chicago, if I remember aright—and I was there—our pavilion was more expensively built than the others?—It was so at Chicago, but the pavilion at Paris was much more expensively built. Chicago was a brick and terra-cotta structure, and Paris was an iron structure.

3267. As compared with the other pavilions, was not ours the most expensive?—Ours was certainly the most expensive, with the exception of the German, and it was of a stronger construction altogether than the other pavilions. But then, of course, it was considered practically as an exhibit. I refer here to the Chicago pavilion.

3268. Have you any opinion as regards having a small permanent body in this country connecting one exhibition with another?—Yes, I have. I am of opinion that a lot of time is lost in commencing the work of every exhibition over and over again, because that is practically what the present practice means. For instance, with St. Louis the organisation was done there, and now it has all practically passed to the winds, and if another big exhibition of the same sort came on you would have to gather that material or other material to start work again.

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3269. Did you get a large collection of books at St. Louis?—Yes, we had quite a large collection of books.

3270. And I suppose at Paris there was a collection?—Yes.

3271. Do you know what became of those?—They were all distributed again to the owners at the end. Do you mean the books of the exhibition?

3272. I am referring to the books of reference and catalogues, and so on, relating to the old exhibitions—what we might call exhibition literature?—Those books belonging to the Paris Exhibition went to the Record Office, and I believe the St. Louis books are going there; but, in fact, I do not know quite what has been done with them. (In answering this question I was under the impression that it referred to official records.)

3273. In Paris you had a sort of statistical bureau, if I remember aright?—Yes, but it was not much good, because there was no permanent record kept at all, to my knowledge.

3274. All the books that were sent over were not preserved, I suppose?—No.

3275. I suppose that any permanent body which might be appointed ought to have whatever books there are left?—They should have whatever is left for reference. If you want to make a reference now you will find very often that one of the members of the staff, or the secretary, or one of the chiefs, has the whole. For instance, he has copies of all the forms and everything of that sort. There is a copy to be found possibly in the Record Office among the papers, but then it is such a hard job to get at the papers at the Record Office, and you possibly have to wade through nine or ten cases of papers before you find what you want; whereas if there were a permanent office for exhibitions all those statistics could be kept there. I am speaking strongly on this point, because I know what a help it has been to me in the different exhibitions I have been connected with to have a guard book of all the forms and particulars of the circulars and other things which it is necessary to send out, and the dates of them.

3276. And the books which you have kept?—And the books which I have kept from the several exhibitions.

3277. The accounting books, and so on, you mean?—Yes. (In my answer I of course refer to copies or rulings of books which would be included in the guard book referred to in answer to Question 3275. The books themselves are always retained by the exhibitor.)

3278. (*Mr. Algernon Law.*) You have had a very large experience of exhibitions, but you seem only to be able to quote occasional instances of favourable commercial results. For instance, you quote saddlery as having obtained a good result from exhibiting, I think, at Chicago, was it?—Yes.

3279. Are those only isolated instances, or do you know of a great number of cases where there has been a commercial result?—I do know of a number of cases, but I cannot speak of instances in the same way that I can of the saddlery. That is a case which I am absolutely able to prove. In regard to the others I am only going on hearsay.

3280. Do you consider that British exhibitors require a money grant to assist them in regard to freight and so on?—I think that it would certainly be advisable as far as freight is concerned.

3281. But if they gained much by exhibiting, why should the State pay to assist them?—I think it should be looked at from rather a broader view—as assisting trade generally rather than assisting individual exhibitors. The same advantage should be held out to any exhibitor in the same line of manufacture, for instance.

3282. Then should there be no selection of exhibitors?—Certainly there should be a selection of exhibitors.

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3283. What body would you say should select?—That should be done by a committee.

3284. A committee formed by what method, or of whom?—A committee formed from whatever Commission you have.

3285. What do you consider that a Royal Commission should consist of; from what class should its members be chiefly drawn?—It should be varied. There should be on the Royal Commission gentlemen who have had experience of other exhibitions and of what has been done in that way, and there should be some business men, I think.

3286. How do you propose that the business men should be selected?—They should be selected by the Commission itself, I think.

3287. They would form part of the Commission?—Yes, as was done at Paris. There were a large number of gentlemen on the Commission who were selected from the heads of the Chambers of Commerce, for instance.

3288. Do you consider that British manufacturers were adequately represented on the Paris Commission?—I certainly think so.

3289. I think you said that the grant for Paris was inadequate?—There was some money returned at the end, I know; but then it was inadequate to assist exhibitors in the way of carriage and that sort of thing. It was a case really where the assistance given to exhibitors was dependent upon the amount of money at the disposal of the Commission. It was exactly the same at St. Louis.

3290. Do you consider the grant at St. Louis was inadequate?—It was inadequate for the purpose of assisting exhibitors in the way of carriage.

3291. Did they not pay freight to St. Louis?—No, not for a lot of them. They did for some of the loan exhibits, and they paid for the collective exhibits.

3292. I may be quite wrong, but I am under the impression that we were told by the secretary that they had paid freight to St. Louis?—Yes, for the collective exhibits.

3293. Not merely for the loan exhibits?—Of course, the loan exhibits were collective exhibits. But they did not pay freight in the case of a man who exhibited of his own accord. He had to pay the whole of his expenses, as there was nothing left to pay his freight.

3294. Can you give any special instances of the ill-treatment of British exhibitors or of the British section at Paris? Was there anything of that sort with respect to the awards or with respect to the management and the keeping of order, and so on, in the British section?—There was very little trouble with exhibitors, but there is always a certain amount of trouble when you have to deal with 500 or 600 people. They object to regulations which it is necessary to enforce. One man imagines that there is no earthly reason why he should not have something, and he does not see that the same principle has to be applied to the other 500 or 600. The trouble is in carrying out the regulations.

3295. Were there any instances in which the British officials considered that the exhibitor had not carried out the regulations, and that the exhibitor refused to attend to what the officials had said, and in the result it appeared that the French did not object to what he had done?—Only in the case of sales from the stalls.

3296. Were there not cases of that sort in reference to the arrangement of exhibits?—No, we had no trouble with the arrangements of the exhibits, at least nothing that came within my knowledge. There were cases where an exhibitor wanted to turn his stand into a sort of shop or bazaar, and there the Commission had to put its foot down and say it would not allow it.

3297. Was there not any trouble over the pottery exhibits in the Paris Exhibition?—No, there was no trouble over the pottery exhibits—at least, nothing that I ever heard of.

3298. I thought there had been some case in which an exhibitor had obtained, as he believed, permission from the British officials to arrange his pottery in a particular way, and then he was told that he must alter that arrangement because the case came too far out into the gangway or something of that sort; but he declined to move his goods, and said that if they pleased they might bring an action against him for not removing them, and then it appeared that the French had no objection at all?—I do not remember any instance of that sort. We had no trouble at all with the pottery exhibits in Paris, as far as I remember—and it was one of my sections.

3299. Then you would have heard of such a case?—I should have known of it, certainly.

3299*. Was there always a Commission official in attendance in the British section the whole day, so that in the case of any British exhibitor finding he was exposed to any annoyance he would have somebody that he could appeal to?—We had men on duty in the Exhibition the whole of the time it was open.

3300. Were there any of the superior officials there? I do not mean a man in the position of a warder or constable; but one of the superior officials themselves?—Not in each section of the Exhibition; but each section was visited.

3301. Was there always somebody accessible?—Yes.

3302. And was everybody informed where they might go to in case of need?—They knew the offices, the place where they had to change their passes, and that sort of thing. Beyond that, there was always some responsible official who visited the sections once if not twice a day to see if there were anything wrong.

3303. But he was not there the whole day?—No.

3304. And you were not there always; you were moving backwards and forwards?—That is so.

3305. We were informed that that was a difficulty which was encountered by British exhibitors?—Of course, where you have 14 or 15 different sections you would require a tremendous staff if you were to have somebody in each section the whole time.

3306. How many did the staff consist of?—We had a superintendent for every two or three buildings.

3307. What was the number of the superior officials on your staff—I mean the people of education?—We had about 13 or 14, I suppose, altogether.

3308. I gather that on the whole you approve of the system of appointing a Royal Commission?—On the whole I do certainly. I think that a Royal Commission gives a *cachet* to the thing which you cannot get from any special committee.

3309. Do you think a Royal Commission is a useful body?—I do, certainly.

3310. Have you heard of any difficulty in inducing British firms to exhibit; if so, to what do you attribute that?—It is attributable, I think, to various reasons. If it is the case of an exhibition abroad, it is attributable in many instances to the agent of the exhibition in the town or in the country where the exhibition is held, who may consider that it is a little bit too much trouble for him to look after the exhibit, and so he advises the firm not to exhibit. That was particularly so at St. Louis.

3311. Have you heard of instances where the agent sold the goods under his own name, with his own name affixed to the articles, and that he objected to the name of the real manufacturer being brought before the public?—That has happened at all exhibitions.

3312. So that is a difficulty which you cannot well overcome?—You cannot overcome it. The agents (I refer here to the permanent agent of the firm in the city or country in which the exhibition is held) gets an impression in his mind that the firm is going to deal direct with other houses instead of through him.

3313. So that in that respect a British section must always be inadequate?—Certainly it must be in that respect, until they get over that.

3314. That is because British manufacturers employ agents?—Yes.

3315. But if the British section will always be inadequate for that reason, do you think it is an advantage or a disadvantage that there should be Government support given to the section?—I think that without the Government support for an international exhibition there will be practically no British section worth speaking of at all.

3316. To pass to another matter, you said, I gathered, that the German pavilion at St. Louis cost more than the British pavilion?—I believe so.

3317. Do you know what the cost of the German pavilion was?—I do not know the cost of it.

3318. Do you know what became of the German

pavilion?—The German pavilion at Chicago is still standing, I believe.

3319. What about that one at St. Louis?—I believe that is down. It certainly cost more; it was a bigger place altogether. It cost, I should say, quite three times the amount that the British pavilion did.

3320. Could the same result as regards appearance and use have been obtained by a less costly structure in our case?—I think not.

3321. Nor at Paris?—I think not.

3322. Our building at Paris was the only building made of steel, I think?—No, it was not the only one.

3323. And but for that the same result could have been obtained by an expenditure of £5,000, whereas it cost something like £30,000?—There was a railway underneath, and we had for the safety of the pavilion to put the steel structure on the top of it.

3324. Did the railway run along by the river and then cross it?—The railway ran underneath.

3325. Was our building placed over the railway and no other building?—Other buildings were just the same. The Italian and most of the other foreign pavilions in the Street of Nations were all above the railway.

3326. Did the railway cross the river?—The railway did not cross the river, but it ran right along under the buildings.

3327. So that practically every building suffered in the same way?—Yes.

3328. Why was our building, as I understand, the only one that had a steel framework?—It was not the only one by any means.

3329. I understood it was so?—If I remember rightly, we had to put those iron girders over the railway on instructions from the French engineer.

3330. That was for the foundations?—Yes.

3331. But the whole of our buildings was made of steel?—Our building was of iron, but I forget the reason of that. The committee, I know went very carefully into it.

3332. The other buildings may have had a steel sub-structure, they had not a steel super-structure, had they?—No, certainly not.

3333. What was the difference in our building?—Certainly our building was more permanently erected.

3334. What was the reason why our building should have been built of steel?—One of the principal reasons of the committee for doing that was the number of art works that were to be stored in it, and their object was to make it as fire-proof as they possibly could.

3335. We have never heard that point raised before. Were there not art works in the other pavilions?—Yes, there were.

3336. Equally valuable?—Yes; but then there was a very choice collection of pictures in the British pavilion.

3337. I suppose there was an almost equally choice collection of pictures and other works of art in the other pavilions?—In the fine art galleries, certainly.

3338. I am dealing with the question of the expensiveness of the British pavilion, and you say it was necessary to have it made of steel throughout on account of the fire risk?—That was one of the reasons.

3339. You say that it was necessary because of the very choice works of art in the British pavilion, but then you also say that there were equally choice works of art in the other pavilions, the German, the French, and so on?—Yes, there were certainly.

3340. So that it would rather look as if the steel-work was a luxury, and not a necessity?—I do not think the steel-work was an absolute necessity. That is my own opinion of it. But, as I say, the reason why the Commission decided to put it up in steel was to have an absolutely fire-proof building.

3341. (*Mr. Malcolm Ramsay.*) Has the British exhibit at any exhibition at which you have been satisfied you in comparison with the show made by foreign nations?—No, it has not.

3342. Would you tell us why? Was it because the quality of the exhibits was inferior, or because the *ensemble* was not impressive?—For both reasons. It is a great trouble to get British exhibitors to go abroad, to start with. Then again the decoration of the building depends so much upon the grant the Commission has at its disposal. It has never been found possible to go in for decoration as a sort of setting up the exhibits on the same scale as the other countries have done.

3343. May I ask whether at Paris, for instance, the decoration of the individual exhibits was done by the Commission or by the individual exhibitors?—The decoration was done by the Commission, and it depended upon the amount of money that they had at their disposal. (I understood this question to refer to the decoration of the sections, and not of individual exhibits.)

3344. Would you say that there had ever been a complete representation of the leading industries of Great Britain at any foreign exhibition?—No, I am afraid I could not say so.

3345. Would you think that it has been rather a haphazard collection of a bit of this and a bit of the other?—It has been that certainly; it has been a haphazard collection.

3346. You would not say that at any leading exhibition there have not been one or two, perhaps three or four, leading firms left out?—No.

3347. At St. Louis one of the prominent features was the chemical section, I believe?—Yes, the chemical section and the fine arts section. There was absolutely no machinery there.

3348. The chemical trade after all is a very small one, is it not?—No. I think there is quite a large chemical trade with the States.

3349. But still there were big trades unrepresented, including the machinery trade?—We had, I think, two machinery exhibitors, but they were not under the control of the Commission.

3350. I think you said that your opinion is that individuals who exhibit at exhibitions do not get direct commercial results from it?—Yes.

3351. But they get indirect results?—Yes.

3352. Do you think they get more trade in this way than they do by using their own travellers and advertising for themselves?—I certainly think they would if they would only adopt the system of sending a really important representative of the firm, who was not looking simply throughout the six months to get as many orders as he could, but who was looking to build up a trade. I think that the system of employing agents at exhibitions who have no interest to serve whatever, except to sell the goods that they have, and who have not to build up a trade, is certainly a bad one for the exhibitor.

3353. I suppose the exhibitor employs an agent on the ground of cheapness; is that the reason of it?—Yes, and to get an award.

3354. You took a prominent part in the Glasgow Exhibition, did you not?—Yes.

3355. Could you tell us roughly how it was organised? Was it got up by a committee of the Glasgow municipality?—It was started by a committee, the majority of which were members of the municipality, and then the guarantee fund was arranged. I think they had a guarantee there of something like three-quarters of a million. As soon as the guarantee was assured, then the exhibitors simply poured in.

3356. Did they get their exhibitors by circularising?—Yes.

3357. And by personal influence?—Never by personal influence. They got them by circularising more than by anything else. They never got them by canvassing.

3358. In the case of the international exhibitions with which you have been associated, have not circulars completely failed to get any response?—No.

3359. We have had it in evidence that many firms just throw them into their wastepaper baskets?—I think that is not the case with the majority. That was not the case with Paris, and it was not the case with St. Louis. To go to a smaller exhibition, the present one at Dublin, we have found that sending canvassers round to firms has been an absolute failure. Firms prefer to deal direct with the head office. Another thing, if I may say it while I am on this subject, is that your canvasser possibly does not see the manager of the firm, but he comes back with a promise, that the firm will exhibit. You rely on that promise, and at the end he does not materialise at all.

3360. That is your experience?—Yes.

3361. That is not what I have gathered from other witnesses?—The personal canvass of exhibitors is a mis-

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take unless you can see the chief—a man who can made an absolute promise to you.

3362. You said I think in your main evidence that you considered the Government grant has not been sufficiently large?—Yes.

3363. And you think that if more were granted in the direction of relieving exhibitors of their expenses they would be more anxious to come in?—I certainly think so.

3364. Are you clear on that?—I am quite clear about that.

3365. We have heard a good deal about the difficulty of getting exhibitors, and the main reason very often which they have given for their refusal to participate has been that they do not think it does them any good. I put it to you that if this is the general opinion amongst exhibitors, is it likely that they will ever be induced, even by direct contributions towards their expenses, to go to these exhibitions?—I certainly think that they would be induced to do so if we paid, say, the carriage of their goods, or provided them with a showcase or something of that sort, and assisted them in some way.

3366. Even with the manufacturers who think it is of no direct use to them?—Yes, I think so. I am strongly of opinion that they look at the outlay that they are going to have in the present year, and that they do not look in many instances to the benefit that will accrue to them, say a year or two afterwards. I have found in talking to exhibitors that they first of all will say they will not have anything at all to do with an exhibition. It was so especially with the chemical trade. Still, if you can say, "If you will only provide the exhibit we will pay your carriage," the reply invariably has been, "That is a different matter altogether; under those circumstances we will come in."

3367. Taking the case of that chemical exhibit, was that not largely got up and organised by the personal exertions of two or three members of the St. Louis staff? That was not got together by circulars, was it?—No. The majority of it was done by circularising. Then Sir Boverton Redwood and Mr. Tyrer used their personal influence where people would not come in. The influence that was the greatest in the whole thing was telling the exhibitors that the Commission would not put them to any expense—the Commission would pay for the carriage, they would arrange their showcases, exhibit their goods, and return them.

3368. Has your experience led you to form any opinion as to the possibility of getting British manufacturers to combine for the purpose of collective exhibits?—It is one of the greatest troubles in exhibitions.

3369. Have you found them very reluctant to combine?—They have been very reluctant to combine. The British exhibitor will not sink his individuality for a moment.

3370. And yet I gather that you think the collective exhibit is the best form of representing certain industries?—Certainly.

3371. If that is so, and the manufacturers are very reluctant to combine, are you sanguine that improved organisation would really produce much better results than we have got in the past?—I certainly think that it would. There was a departure from that at St. Louis, and it did go certainly a long way towards arranging for collective exhibits. The difficulty in that case is that where we provided a show-case for a man, he wants his own special sign put up, and one man would like a blue plush back to his exhibits to show them off, and another one wants a green. That has been the great trouble in getting organised exhibits to compare with Germany or France, where they simply have a show-case all the same and cut off a little piece for each man.

3372. Do I rightly infer from a previous answer you gave, that it is your opinion that the Government money has not been spent quite to the greatest advantage in the past?—No, I do not think that.

3373. Do you think the greatest good has been obtained from it?—I think the greatest good has certainly been obtained from the money that they have had at their disposal.

3374. (*Mr. Wilson Fox.*) You have been to a large number of exhibitions, I understand, in the capacity of manager, general superintendent, assistant-manager, and so on?—Yes.

3375. I suppose in that capacity you received any complaints that there were to be made?—In most instances, yes, in the sections which I controlled.

3376. Do you find among the British exhibitors that a large number of complaints are made?—Not a very large number. I am speaking of those that reach the ear of the executive.

3377. I am only trying to find out whether the reluctance to exhibit is due to any feeling upon the exhibitors' part that they are dissatisfied with space, and so on?—I do not think so at all. The only trouble, if I might say so, that we have experienced with exhibitors is rather that they will not conform to the regulations, not only those that are issued by the British Commissions, but those that were issued by the foreign authorities.

3378. Have you found that that is a difficult matter to deal with?—It is a very difficult matter.

3379. You have to exercise a great deal of patience, I expect?—It has to be exercised.

3380. And your object is to send these people away happy?—I send them away as happy as I possibly can. The exhibitor looks at the thing from quite a different point of view to that from which the executive have to look at it. You have 500 men to deal with, or 600 men, as the case may be, and the same principle has to be applied to all, each one thinks there is no reason why you should not treat him with more favour than the rest. He imagines that his little crow is a pigeon, as it were.

3381. And I expect you let him think that is so?—Certainly.

3382. And you send him away quite pleased and contented in the end?—We send him away contented in the end.

3383. That would be so in most cases?—That would be so except where they will go dead against the regulations, and then, of course, strong measures have to be taken in those cases.

3384. Then you do take strong measures sometimes?—Never myself. I do that in consultation with the secretary or the commissioner.

3385. Where you find it necessary to do it?—Where I find it necessary, I certainly advise the commissioner to take strong measures.

3386. But those would be exceptional cases?—Absolutely exceptional.

3387. (*Mr. Harris.*) There are one or two points in which your evidence is so different from some things we have heard that I should like to ask you for one or two explanations. Why do you say that in some points the interests of the executive must be opposed to those of the exhibitor? Is it not the business of the executive simply to look after the interests of the exhibitors?—Certainly; but then in foreign exhibitions one of the duties of the executive is to see that the regulations are upheld, which they have given their word to the authorities where they are exhibiting, shall be upheld.

3388. Is the executive usually absolutely bound by those regulations? Cannot they with a little diplomacy get them stretched or tightened, and so forth?—They can, and it has been done in every instance possible. We have done that. Sir Herbert Jekyll did it in Paris, and Sir Charles Watson did it at St. Louis. The regulations there were stretched as far as possible. But a permission would not be given to the exhibitor to go beyond the regulations until it was settled by the chief authority at the exhibition.

3389. I suppose you recognise the exhibition agent as a necessity?—Yes.

3390. I should think you would call him a necessary evil under the present arrangement?—Certainly he is a necessary evil.

3391. But do you not think he is a man who with a little handling can be got into line?—Some you can, but some you cannot.

3392. It is a matter of personality, you mean to say?—It is absolutely a matter of personality. It means this: When you are dealing straightly and thoroughly and honestly with the exhibitor and the

executive of the exhibition itself—I am not speaking of the Commission for the moment—that the agent goes behind your back, say at Paris, and gives a bribe to some of the officials, and then he comes back to you with their permission saying the French people do not object, or the American people do not object, but you object. That is due to the palm-oil which has been used by the agent. It has therefore to be verified with the head authorities before the Commission can give permission for that extra thing to be done.

3393. Do you think that is a danger which can be looked upon as a general danger?—It is certainly a general danger. I have no hesitation in saying so.

3394. Do you think that could be to any degree got over by having a larger sprinkling of commercial men upon the Committee or upon the Royal Commission?—I do not think so. I think you will always have the same difficulty. It is a difficulty that we have met with at every exhibition.

3395. (*Mr. Wilson Fox.*) There have been complaints by witnesses who have come before this Committee of our organisation as compared with foreign organisations. Do you think that we are under-staffed, and that our British Exhibition Commissions require more hands?—Yes; I think we have been a little bit understaffed almost through the whole of the exhibitions.

3396. That is your general experience?—Yes.

3397. Do you think our organisation could be bettered if we had more men on the staff?—The trouble is this: That when a Commission starts you have to pick up new hands and teach them, and you have nobody who has had a lot of experience before. Then subsequently the time arrives when decentralisation comes, and then they have to act on their own, and they do not always act discreetly.

3398. By "they" you mean the members of the staff?—I mean the subordinate members of the staff. Some of the men whom I should call assistant-superintendents of buildings, for instance.

3399. In what way would they not act discreetly? Do you mean that they are rather rough with people?—Very likely. Another thing is this—that they do not see the general principle that has to be adopted in dealing with all exhibitors alike. They say there is no reason why one man should not have a certain thing, but then that involves the principle that you have to permit the whole of the exhibitors to have the same thing.

3400. Do you think we are greatly under-staffed as compared with some of the foreign countries?—I think we are, certainly.

3401. And one of the reasons for criticism in some quarters is that our organisation is not quite so effective as they think it might be?—Certainly that might be so.

3402. (*Mr. Malcolm Ramsay.*) Did you, when the stands were being arranged and the exhibits were being put into place, provide any police or staff of guardians to keep the ground clear?—Yes.

3403. Do you know whether you had as many as other nations, say the Americans?—We did not have so many as some of the other nations had, but I venture to think that the few that we had were more effective than the Americans or the French. They were men who were working hard all the time, and they were not standing about doing nothing.

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3404. (*Chairman.*) I suppose it has always been necessary to engage new men for most of these exhibitions, as you never could retain people from exhibition to exhibition?—That is so. But there is no difficulty in getting men. I am speaking now more particularly of, say, the assistant-superintendents.

3405. Where would you get them?—Really, it is very hard to say. I have always found at exhibitions that the assistant-superintendents have been only too glad, as soon as they know that an exhibition is coming on, to apply for an appointment.

3406. There are a certain number of men, I suppose, who live by it?—I have a man now as assistant at Dublin who was at Paris in 1900, and at Glasgow and Wolverhampton. He has also been with Mr. Cundall in Milan.

3407. Is that all he does?—I do not know. The services of a man like that are invaluable, because you do not have to keep teaching the work to a fresh man.

3408. Still, you must have the exhibitions coming very thick for him to make a living out of them alone?—I do not know about that. I have not found that there has been much trouble with my record here in that way, but I have always been able to find men for the work.

3409. Have you never thought of any plan for a sort of reserve to be employed in other ways in the meanwhile, but you having the first call on them?—You cannot do that unless you let them have something to retain them. At several of these exhibitions the men, at the end, obtain permanent employment.

3410. Some of them do that, do they?—The majority of them obtain permanent employment.

3411. Owing to being exhibited themselves?—Yes.

3412. That is owing to their getting known?—Owing to their getting known amongst the exhibitors. I always think it inadvisable to persuade a man to leave a permanent situation that he has for an exhibition which will only last a year.

3413. (*Mr. Harris.*) You mean that he is drawn into a firm?—Yes.

3414. (*Chairman.*) He has been drawn into a firm, and so you lose him?—You lose him altogether for exhibition work.

3415. (*Mr. Algernon Law.*) You mentioned "palm oil" in connection with an agent getting behind the backs of the authorities and bribing some subordinate official?—Yes, I did.

3416. Have you, of your own knowledge, known of any instance of a man bribing an official?—I have been told of a good many cases.

3417. (*Mr. Wilson Fox.*) Have you ever known of a case of a juror being bribed, either of an attempted bribe, or of a successful bribe in the case of a juror?—I think that the same answer would apply to that as well, but the men referred to were not English jurors.

3418. There were a good many such cases?—Yes, a good many, so I was told.

Mr. August Bornemann, called and examined.

3419-20. (*Chairman.*) You come here, I believe, as representing Messrs. Ruston, Proctor and Company, Limited?—Yes.

Mr. A. Bornemann

3421. What position do you occupy in that company?—I am managing director.

3422. In what town are your works?—Lincoln.

3423. Have you been there long?—I have been there for 30 years, and this is my eleventh year as managing director.

3424. Have you exhibited at exhibitions abroad, and if so, what are the principal ones?—Vienna, Paris (twice or three times), Brussels, Antwerp, Amsterdam, Barcelona—those are Continental, of course. Then we exhibited at the Calcutta Exhibition. It is a long time to go back, but you may take it that we have exhibited at the principal international exhibitions, except those that were held in the United States.

3425. Do you exhibit portable horizontal steam engines, boilers, and threshing machines?—Not boilers, but portable engines, fixed engines, and threshing machines; and, as we went on, oil engines and other things that were brought out. At the Paris Exhibition we exhibited our steam digger as well. We were in three sections at the last Paris Exhibition. We were in the agricultural and industrial sections, and in the section of public works.

3426. Have you had any increase of business which you can directly attribute to exhibiting?—My experience has taught me that you cannot directly attribute business to an exhibition, if you refer to the sales effected at such an exhibition as I am thinking of—

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that is, an exhibition which runs for six months as a rule. You exhibit a certain article, but the exhibit itself cannot be taken out of the exhibition until the expiration of the exhibition; therefore, the article that you show you do not really sell. But there is no doubt in my mind that if you give the public and all your agents who are attracted to that exhibition a chance, and show what progress you have made in your products, that can only be for your benefit. They see that you are going along, and that you are progressive, and they say to their customers they have seen so-and-so, and they know that you have been bringing out something with improvements or something novel.

3427. Do you not get orders at exhibitions?—You see, our article is one that you do not sell over the counter. You might get orders, and you cannot say you do not get any orders, but in proportion they are very small. In a business like ours, unless we have four or five months' work ahead, we are no good. Orders are placed with us in large quantities beforehand. The goods that we ship in February and March we get the orders for in October or November, so that we can work a long time ahead.

3428. If I understand you, you think you have had considerable indirect advantages from exhibiting?—Yes, I certainly do think so, because it keeps your name before the public. It would not do to stop at home, and your agents would not like it. Your agents would feel greatly handicapped. "Where are Ruston, Proctor?" "They stop at home." "What is the the matter? Have you gone through the hoop, or what is it?" You must be there, and it does you good to be there, and it does your agents good. You cannot sit still, you know, nowadays; it is impossible—perhaps it never was possible.

3429. But you have got several big firms in a similar line of business, and two at least at Lincoln; I suppose you meet Clayton and Shuttleworth at exhibitions?—Yes. I might say that we are very much bigger than Clayton and Shuttleworth, but that is a detail. Then we have Robey and Co., and W. Foster and Co.

3430. All at Lincoln?—Yes, and they all make threshing machines and portable engines.

3431. Have you experienced any disadvantage from exhibiting, by having your goods copied?—No, I cannot say that we have. What I am going to say may perhaps not be very flattering, but it is no use mincing matters. Take, for instance, the last Paris Exhibition. If I am a little long you will excuse me. The last Paris Exhibition, I thought, was a mart where a lot was to be seen, and where all the nations came and exhibited. I wanted our people to learn as much as they possibly could, and I arranged that all our foremen should go there; and they did go. I hired three rooms in one particular hotel, and three foremen arrived and stayed a whole week, and when they left on the Friday, there was another batch came on; and so that went on, and I gave these men a chance of seeing the exhibition. As regards copying us—well, I am afraid it is rather a mistaken idea. We are not too proud of ourselves. We must admit that the most novelties and the most recent inventions have not come exactly from English brains, but from American or foreign brains. When we have wanted to know something I have sent our engineers and our foremen over to see, and then to come home and report where they saw that other people were ahead of us.

3432. Has it been to exhibitions or to yards that you have sent them?—To exhibitions. Therefore, I do not think we have much danger of being copied; I believe the boot is on the other leg.

3433. Though you are a very big firm, yet you take rather a humble line?—It is no use being too cocksure that you have won the victory; that is no good at all. You must always be on the *qui vive*, you know; you must be on the look out.

3434. At the same time, you do a great business abroad?—Yes.

3435. In competition?—Yes. I may tell you that we are beating the Americans in South America. That shows that if you only keep your eyes open, and give everybody a chance to think, there is no reason why we should not build equally as good machinery as the Americans can. The same with Germany; we still do a large business in Germany.

3436. You have not shown in South America, have you; there are no exhibitions there, are there?—There has not been one recently. Indeed, I do not think there has been an international exhibition in the Argentine, we will say, because that is really the country in South America which I am connected with more than any other. At any rate, there has not been an international exhibition there for a long time; of course, there are local shows and local exhibitions, but I do not call those international.

3437. I suppose that at the Milan Exhibition of last year the Argentine would be represented very largely?—I do not think she was.

3438. Do you attach very much importance to the awards at exhibitions?—To obtain the first prize, or the highest award, is always a good advertisement. I will give you an instance. Take the Argentine. The majority of the colonists there are Italians, as you know perhaps, and we are able to advertise and fill the country with bills with a gold medal on them and *Gran Premio Milano*. Of course, these fellows think the world of that, because it is their mother country, and your having been successful in their own country there may be a tendency for them to say, Well, that machinery is all right for us.

3439. You have had a great many awards, I suppose?—Yes.

3440. Do you think you have deserved them?—If I say, No, then I run the show down and cry stinking fish; and if I say Yes, you might call me a very proud man.

3441. No, not at all; but do you think the system is a fair one under which you have got these awards?—I have never been behind the scenes. I do not know whether some people get an award when they do not deserve it. In France, some people have received the Cross of the Legion of Honour, and all that sort of thing, but that was perhaps at a time when they were rather cheap. I daresay that there is a Grand Prize given in this way; I daresay sometimes the members of the jury have to raise their hats for a certain firm, because the name is So-and-so, although they only exhibit perhaps £500 worth of machinery, and another firm, perhaps not of the same standing, who have gone to the expense of showing a very large collection of stuff, also get the *Grand Prix*, and of course, there is no appeal. You always have to be satisfied with what you do not get—I mean with what you get.

3442. These awards are given on the reputation of the firm, are they not?—Mostly, I should say; at least, I think it has been so a great deal with the Milan Exhibition.

3443. Your machines are not tested at these exhibitions, are they?—No, they are not in motion at all.

3444. Even as they are granted, you prefer the system of awards to none at all?—Certainly. Perhaps it may seem a little foolish, but in several countries—we will say India or China or Japan, all such countries where people still think a great deal of a little gold medal or a little ribbon—if your agent there has got in his office a tremendous thing with a lot of medals on it, that impresses the native buyers. I believe that if there were no awards at all, the number of exhibitors would drop off immensely, and quickly too.

3445. The next question I have to put to you is whether you have been induced by what you have seen at exhibitions to buy to any considerable extent from British and foreign manufacturers; I think you have answered already on that point that you have got hold of new ideas from them?—Yes. For instance, if we want new tools or anything that we think is labour-saving we go to an exhibition. We send a man first and let him look round, and then I go myself, and take a foreman or a works manager, and we look into it. You have the whole thing there before you, and if you do not like a German machine you can pick an English one or an American one.

3446. So that really you have got an advantage in both ways—first in sending your own machinery, and, secondly, in obtaining points from others?—Decidedly.

3447. You told us just now that you sent over foremen to those exhibitions if they were at all near?—Yes, we do. You cannot expect people to develop their minds, and you cannot expect to get new ideas from them, if you keep them caged up.

3448. Have you ever refrained from exhibiting, and if so, why? I think you have said you have not exhibited in the United States?—Yes, and the reason is on account of the high tariff.

3449. There was another reason, I think?—The other reason is that it would be useless to exhibit there,

because they do not want to buy our machines; they do not require them. Perhaps with the exception of a few textile machines (with which I am not conversant) they do not want our machines. Certainly, taking my line, steam engines, or threshing machines or excavators, or pumps, they do not want them. They are quite as far ahead as we are; they have all the raw material, and they have clever workmen.

3450. You told us, I think, that you still send an immense lot of machinery to South America in competition with North American manufacturers?—Yes, we do.

3451. I suppose the South Americans, the Argentine people, for instance, would come to the United States to see what they could see there, would they not?—They might do.

3452. Therefore I should have thought you would have exhibited there on account of that?—No. Of course, you must study the home market first, and the country in which you do exhibit. Then it is a frightful expense, as you will see, if I tell you in regard to the cost of the Paris Exhibition to us, £3,000 is not in it.

3453. Did you spend more than £3,000?—Certainly. It is a frightful expense, if you take it all into account. The United States of America do not buy anything from us, and so what is the good of showing there? Next year you will have an exhibition in Paris or somewhere else, and let the Americans and Argentinos come and see for themselves. All our agents have the very best in our stores, the very latest.

3454. They could come to Paris quite as easily, if not more easily, than they could go to the United States?—I should say they would come to Paris in preference.

3455. There would be more attractions there, perhaps?—Yes.

3456. Do you attach any importance to having some permanent organisation helping to minimise the trouble and the cost of exhibiting? Would that be of any use to you?—Yes.

3457. I do not gather that you do omit exhibiting, except, for a particular reason, in the United States?—Even if there were a permanent organisation, I do not think that we should go to the United States at all.

3458. That would not make a difference in the United States?—No, we should not go there.

3459. In other places, however, you are ready to exhibit without Government organisation or help in transport?—It would greatly assist us, decidedly.

3460. You would like it, and, of course, we all should?—Rather! I believe it would be a wise step for the British Empire to do so; it would encourage the industrials to come out and show what they have got, and to learn lessons. If they are behind, they learn that at an exhibition.

3461. You mean that the Government should pay a greater proportion of the cost of exhibiting to an exhibitor?—Or meet him in the rate for the floor-space, giving a rebate on the floor-space of so much. The cost of sending your exhibits is not so very important, of course. It always costs something, but you generally get your return freight on that at half the rate. Then, if you exhibit in Italy, for instance, most of the stuff is built for the Italian requirements, so that practically such goods remain in the country, and you do not take them home.

3462. You have not to bring them back again?—Mostly not, except we will say at a big exhibition like the Paris Exhibition, where you really show for the whole world.

3463. Speaking generally, and not only as regards your own classes of goods, do you think this country should take part in exhibitions, and not hold aloof from them?—I decidedly think so—most emphatically.

3464. You do not think that we have been represented adequately lately, do you?—No, I do not think so. It grieves me when you always see Germany being the cock of the walk. It is not very nice. I have seen the same thing in Milan. There were even German soldiers there—German soldiers with side arms.

3465. Exhibiting?—No; they were there to guard the exhibits of the German exhibitors.

3466. Sent there by their Government?—Yes. They had a big pavilion, and they did the swagger there. Take America at the Paris Exposition of 1900; it was a caution. It was enormous. I know we were pushed underneath the gallery. All the agricultural section was most miserably placed under the gallery.

3467. Under the gallery?—Yes, it was most disgusting.

3468. You were not satisfied, then, with the arrangements?—Not at all. I think it was disgraceful.

3469. Did you complain of it?—What is the good of complaining—not a bit.

3470. Did you complain?—Complain! Our representatives tried to complain, and letters were written from Lincoln, but what was the good of it? No support from home. I do not want to be personal at all, and I should not like my evidence to be taken in any way as personal. But you ask me to give my free opinion about the point you ask me upon. England is a tremendous Empire, and yet our English exhibit, we will say at Paris, or at recent exhibitions, I think has been poor. If we see a novelty, where does it come from? Tell me that? It is either "Made in Germany," or it has "U.S.A." on it.

3471. Is that the fault of the organisation of the exhibition?—No. You must elevate your people, and you must help them to show and learn, and they must be better supported. This is an immense country, and there is an immense industry here, and the Government should uphold the dignity of such makers, and bring them forward in a proper and dignified manner, on the same footing as Germany and the United States do.

3472. Can we take it then that you think the best things do not come forward at these exhibitions on account of the want of official organisation?—It may be the outcome of the poor interest which has been shown in previous years. I know a great many industrials who say, "What is the good of that? We shall only get a dirty little corner." It is a big question. Then we complain that the Germans squeeze us out here, and the Americans do that; and then it makes you sick of showing yourself.

3473. You make criticisms, but all the same you have been showing steadily, or rather you have not refrained from showing?—No, we have not refrained from showing.

3474. Though you criticise, and very justly, your treatment?—Yes; but we have not stopped at home.

3475. Do you think there are others who have stopped at home?—Yes, and I believe that is due to the treatment they have had in the past, and the lukewarm way in which their interests have been defended.

3476. We should like from you any suggestions or criticisms you have by which the organisation could be improved. Do you think the Royal Commission is at fault?—I should say so. First of all, to my mind, Great Britain, if there is an exhibition on, should take a far more noble stand, and on a larger scale, and set to work straight away—for instance, get your committee together, and canvass your people; show them that your country itself is going to be well represented in a right royal manner, you may say. Then you will get people together, and you will secure for your producers a larger and better share in the exhibition.

3477. But how would you start it? Would you have some person who should summon a committee or commission—an official person?—Certainly.

3478. Or would you leave it only to the business classes?—I would invite some of the chief industrials in this country to be on that committee.

3479. Would you have a permanent office to start the thing when there was going to be an exhibition which bids fair to be an important one?—A permanent office is a question that is rather one that I have not given any thought to, but I almost think there would be plenty of scope for it. The world is very big, you know.

3480. By a permanent office I only mean some small office, which would go on from exhibition to exhibition, and would have records of the traditions and the experience?—I believe there would be plenty of scope for it, certainly.

3481. What I wanted to get from you was whether you want to have the thing managed entirely by the London Chamber of Commerce or by the Association of Chambers of Commerce, or whether you think the Government are capable of managing the Commission and getting committees to take part in this work?—

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I should say it should be managed by the Government, because I am afraid that Chambers of Commerce are not sufficiently backed up, though there is a centre in the London Chamber of Commerce. I am afraid that it is a more lukewarm sort of business with the Chambers than anything else.

3482. Do you think the money that was granted by the Government for the Paris Exhibition, say, has been sufficient?—I do not know what money was granted by the Government.

3483. There was a large sum spent on the pavilion at Paris; did you get any good out of it?—No, we did not.

3484. You did not?—The exhibitors did not get anything; but we got a small return on our space at Milan, or a small bonus you might call it.

3485. You paid for your space at Paris, did you not?—Yes.

3486. And you paid for your transport?—Certainly, and very heavily, too.

3487. And for the decoration?—When you get your machinery you find the flooring is no use, and you must put boarding down. It is a sort of match-boarding, and you put it all in new. Then there are delays and all that sort of thing, and there does not seem to be anybody pulling the ropes properly. It is hopeless sometimes, and people get tired of it, and say, "We will not exhibit any more."

3488. But they do?—No, *they* do not. Some do.

3489. You have?—Yes— never say die, but still hope for better things to come.

3490. But you think there is a great want of proper organisation?—Yes. I should like to see Great Britain come forward in a bolder, larger, more majestic manner. Look at this immense empire. Did you go to the 1900 Exhibition in Paris?

3491. Yes?—Were you satisfied with the way Great Britain was represented?

3492. I am afraid I have got to ask you questions, and I am not in the witness chair myself?—If it is all to come from me, you will pump me dry. You know it was not noble; it was not good enough.

3493. But you will grant that the exhibits must come from the exhibitors?—Yes.

3494. The Government cannot supply the exhibits, except out of the hands of the manufacturers here?—That is so. I do not mean to say anything inconsistent with that.

3495. I understand you suggest that if we had a better organisation we should attract more exhibits?—You would. You should get some of the industrials on the committee. I assure you I do not want to get on; I have got quite plenty to do.

3496. But you think we might have a better and a stronger committee?—Yes. Then I think the Government ought to vote larger sums of money to uphold the dignity of the Empire. Take our receptions now and again, and the conversaziones. I went to one at Milan. Of course, there were attendants at the door with the name Germania on their caps, and they were in uniform. Practically German was the language that was spoken there. These people actually went to the trouble of bringing the best opera singers by special trains from Berlin. France did something similar, and so did Austria, but of course England was not in it. I do not say it is necessary; it does not pay your dividends in your business, but it will pay your dividend to the British Empire. It is no use to be always parading yourself as a nation that does not take any interest in these things. It is no good. If you have something in you you must show it. It is too paltry.

3497. Do you think that we should have spent money in bringing opera singers to Milan, and in so making the thing more attractive?—Do not take me, please, like the Bible, by the letter. I only give you a sort of instance. I do not mean that you should do that at all. You might as well say, Do you think we should have a pair of boxers on the stage? I do not mean that. But look to our way of having a reception or having a pavilion—a paltry little thing—yes, it had the English coat of arms on it, but it is not good enough for Great Britain. It ought to be something majestic. It is not representative of an Empire with our vast colonies.

3498. But surely we spent a very large sum on our pavilion at Paris and elsewhere?—How much?

3499. £30,000 we have been told?—It seems a lot.

3500. You do not think it made a good show?—I do not think so. Of course, you are asking for my criticism, and you must take it for what it is worth.

3501. Certainly, we want your criticism and your advice?—Thank you.

3502. (*Mr. Harris.*) I think we at this table rather have to look at exhibitions from the point of view of the return they may bring for the money the State spends on them, assuming that it does spend money?—Do you mean by the individual exhibitor, or by the Government?

3503. By the Government for the moment. When you talk of a large exhibit worthy of the British Empire, do you think that it would really pay the British Empire from the point of view of the trade which it would bring to the country?—Yes, I do; because you would stimulate the industrial, the producer, the manufacturer, to greater exertions. You would give him an opportunity to show his wares at these exhibitions, and attract the attention of buyers, instead of leaving it to the other competing nations who are there to do so.

3504. Did I not understand you to say that although you exhibit almost everywhere, you cannot trace actual sales to your exhibitions?—I did say so. I was speaking of your exhibits that are there, the things that you do exhibit. You may have sales in an odd case.

3505. Did you not go further than that and say you could not really trace any business that arose out of an exhibition?—We were talking then about individual sales.

3506. Not orders?—That is a different question.

3507. Then we will take orders?—Orders certainly, and expansion of business we can trace.

3508. You can trace expansion of business to exhibitions?—Most certainly we can, or else we should not have gone on with it.

3509. If that is true, as a rule, of exhibitors, are you not using an exhibition really as a means of advertisement?—Yes. But the word "advertisement" is rather elastic, is it not? You can either do it in a paper, or you can show.

3510. We will say a means of pushing the trade of a firm?—Yes, certainly.

3511. In that case, do you suppose that we are justified in spending money upon supporting such an arrangement?—I do, from the simple fact that you can bring more trade to the country.

3512. You would not be glad to be relieved of the necessity of exhibiting by a sort of general agreement to stand out of exhibitions altogether, I suppose?—No, I would certainly not. I grant you it is a big expense—that is quite true. If that idea would refer to England standing out altogether, then I say I hope I shall not live long, because I think it would be disgraceful for a country like England, and I hope it will never come about.

3513. I should like very much to ask you a question about one phrase which you used. You said, I think, that you would like to work up machinery equally good to that of the Americans?—I beg your pardon.

3514. I think you said in one of your answers to the Chairman that you had in view, as an ideal for your firm and others, to learn to turn out machinery equally good to that of the Americans?—No, I did not say that, excuse me.

3515. I thought you said something of the sort?—Something of the sort it may be, but not of the Americans at all.

3516. You did speak highly of the American machinery, did you not?—I did not.

3517. You did not?—I spoke of their inventions.

3518. But not of their machinery?—I will back an English engine any day against American engines.

3519. I wanted to get that out of you, but I understood your statement the other way?—We copy their brains if we can, but we do not copy the way they make it.

3520. That is just what I wanted to get. I did not understand your remark?—You take an English loco-

motive, and you take an American; the American is done for in eight or ten years, and the other one is good enough for thirty years. The other day I was in Italy, and, would you think it they were very pressed for locomotives, and they bought, I think, 30 Midland Railway second-hand locomotives, and they are running there to-day, and considered good. We copy their brains, Sir.

3521. Was it not worth your while to go to the St. Louis Exhibition and exhibit these big engines, and show the American that, after all, you have a thing that will last out two or three of his?—It is a very nice idea, and very philanthropic, but you know it touches our pocket. If they want to see what we are doing they can have our catalogue, and come over. Only the other day we had a letter from an American firm who are strong competitors of ours in the Argentine. With a sort of cock-and-bull story, they said they thought there was a lot of business to be done in our engines. I wrote them back, "If you want to copy one we will sell you one, but if you tell me you can do business with them in America, with a 45 per cent. *ad valorem* duty on it, then here ends the correspondence." I have not heard again, and do not expect to.

3522. I am only going to trouble you with one more question, and that is again about America. You stated that at Paris the American show was enormous and extraordinary, or words to that effect, but would you mind explaining what you mean by that?—I did not refer exclusively to America. But I said that countries like the United States did show on a far larger scale in a broader way than we did by a long way. You will pin me down to America, but have you been to this exhibition? Perhaps I ought not to ask any questions.

3523. No, I have not?—Well, take, for instance, the American harvesting machinery exhibit. It was simply magnificent; it was beautiful. Now, you know the Americans could not do that out of their own pockets; they must have had some subsidy from their Government. Their show cases were made in a magnificent way, and they were all uniform. With the Germans it was the same. We will take the Fixed-engine Section of Germany; all the railings were made to one uniform handsome pattern.

3524. Do you feel any harm done to you by this grand show, as a practical matter?—I feel sure it does us harm. Excuse me saying so, but the horizontal engine exhibit of England was a poor thing. I want English exhibitors to go more to these shows, and to learn a lesson, and to come away ashamed of themselves—that would be sometimes to their own advantage.

3525. Did you show any horizontal engines?—We did.

3526. Do you mind explaining why, when a great firm like yours was showing, you can admit that it was a poor show?—Why, because you have to be honest in these matters. Do you take our individual exhibit, or the British exhibit collectively?

3527. I was taking your individual exhibit?—I say our individual exhibit was a beauty, for the matter of that. We spared no expense, and we were in three sections. I tell you we were in the Agricultural Section, and the Industrial Section, and the Section for Public Works. There were, perhaps, Galloway, Robey, Ruston and Proctor, and Hick, Hargreaves and Co. I believe there were half a dozen of us. But I should say that the French engines and the German engines were whoppers, tremendous things, and they had a beautiful stand. You know we felt a little bit small after that.

3528. Was that not a matter of want of arrangement, or was it a failure to show the best things?—It was a failure to show the best things.

3529. (*Mr. Malcolm Ramsay.*) I gather that you have exhibited at practically all the big foreign exhibitions?—The principal ones, yes.

3530. Is it the case that in considering whether you will exhibit or not, you do not attach very much importance to the question of there being a Government grant for the representation of British exhibitors?—No, I have not considered that.

3531. I mean to say that this has not been a consideration which induced you to exhibit, or induced you to abstain from exhibiting?—It has not been so at present. As a matter of course we should treat it on its merits when the time comes round for another exhibition.

3532. In the past you have exhibited pretty impartially at exhibitions which have had a Government grant, and at exhibitions which have had none?—Yes. Might I just here interrupt you? Let us go back 15 years for a moment, when England practically was the purveyor in machinery to all the world. That is not the case now. I do not attribute that exactly to exhibitions. The exhibitions that have taken place during the last 15 years are only a few in number, but they have shown us that countries like Germany and the United States—even countries like Hungary, Italy, and Switzerland—have come forward tremendously. I may tell you that one of the finest fixed horizontal engines, studied to the greatest economy both of steam and of coal, is a Swiss engine made in Switzerland—and they have not got an ounce of coal there.

3533. I suppose you attribute that to other reasons than exhibitions?—Quite so; but if you stop at home you will never learn, and the country must make some effort to come forward or else we shall be left alone, I can assure you.

3534. You exhibit from purely business motives?—Yes, not for the sake of health.

3535. I mean rather that you do not exhibit from patriotic motives so much as from business ones?—That is so. The English flag on your stand is very nice, you know, but still you go there for £ s. d., if possible—in the future, mind you—because you have to spend a lot of money to show.

3536. May I put it to you that your trade is one which has a certain peculiar adaptability to exhibitions, and that there are many other trades which stand to gain much less by exhibiting at foreign exhibitions than you do?—Yes, there are some. If you will specify them I can answer you at once, no doubt.

3537. Do you think the makers of textile machinery stand to gain by exhibiting abroad as much as you do?—I quite believe that.

3538. I ask, do you think they would?—I do. Look at the machinery that is bought now—textile machinery made in England. It is wanted everywhere.

3539. Can you explain why, as I understand, the makers of textile machinery are rather reluctant to come forward?—I cannot tell you, because I am not in that trade. I might offer an opinion which is not worth anything at all; I do not know.

3540. Do you consider that there are great differences between trades, and that some would gain a great deal more from exhibiting at exhibitions than others would?—What would others lose?

3541. Their products are not such as can be conveniently exhibited; they are large, heavy goods?—That does not stand in the way at all.

3542. And they are not likely to get direct orders?—That is no objection at all. Take, for instance, a firm like Krupp. They exhibited at Paris and at the Düsseldorf Exhibition. Their exhibit was simply enormous. Look at the enormous guns and the tremendously heavy armament that was transported there. That is no impediment at all.

3543. I fancy there were probably special reasons why Krupp exhibited?—I do not know; but why does not Armstrong exhibit in the same proportion? Krupp had a magnificent exhibit in Milan. Italy is a maritime nation, as you know. England exhibited a little bit—models of ships. But side by side with Germany, England makes a poor show, and I remain of the opinion that it is undignified.

3544. Is it your experience that British industry has ever been completely represented at any exhibition which you have attended?—No, I should think not—not to my recollection.

3545. Our show has always impressed you as less good?—Dots—a little bit of this and a little bit of that; but not sufficiently representative.

3546. You were speaking just now of the backwardness of the British Government; may I suggest to you that one reason why our exhibitions are not more successful is the apathy of the British manufacturer in regard to exhibiting?—Is that so?

3547. We have been told by witnesses that they have had very great difficulty in getting exhibitors to

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come forward. For instance, at Paris in 1900, they tried many ways, and it was only with great difficulty that they induced exhibitors to come in and get enough to make up a show at all?—What was the reason they gave?

3548. I was asking you whether you agreed that there was apathy among the British manufacturers?—You see I was not on the committee of the exhibition.

3549. I was only asking you if you had any experience of that?—I know several who said: "We shall not go."

3550. I was suggesting to you that the Government might do its best, but still it requires to be met by a greater keenness on the part of the industrials, and that the effort cannot only be on the part of the Government?—My dear sir, would you rather walk in a procession with a band at the head, or would you walk in a procession without a band? But I have no right to ask you a question; I am so sorry. That is my view of the matter—that your Government should come out and show first of all in an official manner an exhibit worthy of this immense empire; then you will get your rally of your industrials, and they will be proud to go, and then we shall beat the Germans and the Americans, and we shall show there is still life in the old dog, and that we can make everything as they do. Bring your people out and let them see what the other people do.

3551. I was suggesting that the manufacturers have not as a matter of fact shown any keenness to come forward as a body, in spite of the large grants which have been given them—take, for instance, the Paris Exhibition of 1900?—May I ask you, is this International Exhibitions Committee of long existence?

3552. (*Chairman.*) It was appointed in November, 1906, and we have sat ever since?—I think it is a very wise step, if I may express my humble opinion, and a very necessary step.

3553. (*Mr. Malcolm Ramsay.*) I should like to ask you one more question. Will not the item of floor space, to which you alluded, form a very small item in the total expenditure that you have to incur in exhibiting abroad?—It will soon amount to a couple of hundred pounds, you know; and then, of course, there is the decoration.

3554. The total cost might be £1,000, or more?—Yes.

3555. I think you mentioned £3,000 in one instance?—Yes, the Paris Exhibition of 1900 came to that. You have to decorate your stall, you have to put a floor in, and railings, and flowers and palms, and all that sort of thing, to make it very attractive—it all costs money. Then, of course, you pay frightful prices at an exhibition. If you want a carpenter, just to put a little bit of a floor in, you will find the nails cost you perhaps 4d. each, or something like that. It is very expensive.

3556. (*Mr. Algernon Law.*) May I venture to ask whether you were educated in this country?—I was not. I was born in Amsterdam. I am naturalised.

3557. Did not Armstrongs exhibit at Milan as an Italian firm? They have Italian works, have they not?—There was another firm, I forget the name—I think it was Armstrong—but they only showed two guns.

3558. And Vickers, Maxim, did not they exhibit?—Vickers, Maxim showed, but they only showed two guns.

3559. I think Mr. Ramsay asked you some questions about that. It is not surprising, perhaps, for a maker of armaments to send exhibits, because that is the best way of bringing his goods before Governments. It is not done, in their case, to bring private trade, because there is no private trade in their manufactures, is there?—No.

3560. The bringing of heavy guns to an exhibition is a very different case to the bringing of locomotives, say, is it not?—Quite so.

3561. Do you not think there are reasons why locomotive manufacturers should be reluctant to come forward, for instance, on account of the heaviness of their goods, and the difficulty of transporting them?—Yes, perhaps on account of the duty and the difficulty of the transport, but that, after all, is not such a great item.

3562. These goods go duty free to the exhibition, do they not?—The goods at an exhibition, as a rule, are in bond until they are removed.

3563. The case of locomotives is an instance where a manufacturer is not likely to exhibit because the cost is too great?—I do not quite follow you.

3564. We have had it in evidence that though a great locomotive manufacturer did exhibit in the United States at a cost of £3,000, he got no benefit out of it?—Was that an English locomotive manufacturer?

3565. Yes?—They do not want his engines in America, and he need not have gone there. They would put 45 per cent. *ad valorem* on; that is, if you put £45 on £100's worth of machinery imported, you can quite understand that it is simply impossible to do business.

3566. Would you rule out the United States, then, as being an instance which one would make a kind of exception?—Yes, I would. In all other countries we are all alike, and we are all in the same boat. For instance, at Milan the exhibits of the Belgians in waggons, carts, and locomotives were something enormous; the Austrians the same, the Hungarians ditto, the French ditto—they were all there.

3567. Why is it worth the while of the German manufacturer to make a great effort to exhibit at St. Louis, when you yourself were not disposed to go to St. Louis, and you quite agree that a locomotive manufacturer should not go there?—I cannot tell you why the Germans went there. I do not even know which firm you are referring to. Perhaps their representative wanted a holiday.

3568. Do the other Lincoln firms which you have mentioned exhibit at foreign exhibitions?—Yes. I cannot, of course, say whether they go to every one.

3569. I forget whether you noticed any difference between these classes at an exhibition where there was a Royal Commission, with a large sum of money to spend, and at an exhibition where there was not such a sum?—Has there ever been one with a large sum of money to spend?

3570. It was over £100,000 at St. Louis, and it was over £100,000 at Paris, too?—We did not go to St. Louis.

3571. But you went to Paris?—Over £100,000 there?

3572. Yes?—My goodness! What have they done with it? They might have bought us the gold medals out of the £100,000. We had to buy them ourselves.

3573. (*Mr. Wilson Fox.*) You said that England, in showing her goods abroad, generally made a poorer show than Germany?—Yes.

3574. Do you put that inferiority of British exhibits down to the superior organisation of the German Government, or to the lack of keenness on the part of the British manufacturer to show?—I should say most certainly to the superior organisation of the particular country which invites their manufacturers to show. If you do that, you make your manufacturer more keen to exhibit and to go to that expense.

3575. Do you think that, with a better organisation here, and with facilities for putting before a British manufacturer the advantages of exhibiting, we should get more manufacturers to join in these exhibitions?—I am absolutely certain of that. That is my humble opinion.

3576. You do not think at present that the British manufacturer appreciates the advantages which may be derived to his business as an advertisement when showing abroad?—That is a very broad question, you know, very. I believe there has been for some time a sort of mistaken idea amongst several British manufacturers that they were afraid they were going to be copied.

3577. That would be particularly the case in some lines of business, would it not?—In some lines; but I do not think that we have very much that we can give away; I think there is very much more scope to acquire.

3578. That is, for a sharp business man to acquire?—Most certainly.

3579. I understand from your evidence generally that the manufacturers in the line of business which you represent do show in foreign exhibitions a great

deal more than certain other lines of manufacturers?—That is possible; it may be so.

3580. From what you see at exhibitions there has generally been a certain number, at any rate, a considerable number, of the leading agricultural manufacturers showing, has there not?—Yes; but we also exhibit at industrial exhibitions, such as the last Glasgow Exhibition, and so on.

3581. You stated a fact which I am extremely glad to hear, namely, that the English agricultural machinery is of the best quality?—No, I did not say that. You must not take that from me. I say that we should not always like to copy him.

3582. I may be wrong, but I certainly understood you to say that the machines themselves which we make here are of the best quality?—Yes, *our* machines.

3583. Do you find that in showing those machines abroad, which are of such good quality, there is a demand abroad for the best quality of machines; or do you find that foreigners prefer to buy a cheaper class of machine of a second-class quality?—"Abroad" is a very big order, and "foreigners" is a very big order. There are markets in the world where this pencil if it costs a farthing people will buy it, and there are other countries that would not look at it unless it cost twopence. Take the Indian market, for instance.

3584. I will not follow that up, but I will put it to you that you find in your business that it is best only to show the best machinery?—We do not make any other. We do not make second-rate machinery.

3585. That is the answer that I wanted to draw from you. Therefore you leave to other people, we will say to this large order of foreigners, the benefit of selling the second-class machinery?—Yes. You talk about agricultural machinery.

3586. I talk about it because you are here to give evidence upon it?—Pardon me, we only make threshing machines and portable engines, we do not make harvesting machinery or ploughs, and these things are all combined under "agricultural machinery," and yet they are things which we do not touch. Let me just tell you as an instance that the American harvesting machinery is the best in the world, and even if you were to put a duty on it, it would still be bought in this country.

3587. Do you find that in selling this English machinery, which I am glad to hear you say is of the best quality, the tariffs have interfered with the sale of it?—Yes, the tariffs have.

3588. Also I understood you to say that the competition which has arisen in the last fifteen years has interfered with it, and that other people are making this machinery?—Decidedly. Other nations have come to the front. Of course, a great many of these men have been taught in England, and then they have gone away and improved on it, and found there was a demand for such stuff and started making it. We will take the United States, which are self-contained; America has every blessed bit of raw material within herself, and she, of course, manufactures. It is the trend of the times; it is progress.

3589. But still you, at any rate in your business, which is a first-class one, have learnt something from the foreigner?—Most certainly, and we do every day—I do not mean every day, but still we do, and there is not an exhibition where I do not send our works manager and a foreman to it. They always find something. Either a Hungarian, or a Frenchman, or a German, or an American, whoever he may be, he has something which we have not got, and if we acknowledge that that is a good thing, very well, we will adopt it. In the same way if these fellows find that we have something, well, you cannot help it, and you cannot stop them, except when you have protected it by a patent.

3590. The question has been raised several times before this Committee as to how many exhibitions a large manufacturer would be prepared to show in over a series of years. I should like to know your opinion about that. What is the limit of the number that you would care to send to? Supposing there was a big international exhibition every five years, or three years, or seven years, what would be your view of that?—Once in ten years is quite sufficient.

3591. That would be quite often enough to answer your purpose?—Yes, I think so.

3592. Would that be because there would not be any new invention to show in the meantime, or what would be your motive for suggesting it?—First of all, the expense is a very great one, and I should say that once in ten years is really sufficient, because you have so many other little exhibitions in the meantime.

3593. But you would be sending in the meantime to the smaller exhibitions, would you not?—Yes.

3594. That would include the ones you sent to in England?—We send here, for instance, to the Smithfield Show and the Royal Agricultural Show, but I should very much like to do without it.

3595. Yet you cannot afford to?—We cannot stop at home, unless we all say that we will do so—but then they won't.

3596. In the meantime, in speaking of small exhibitions, you are referring, I take it, to the English ones, the agricultural exhibitions?—Or to foreign ones.

3597. It may cost you almost as much to show at one of the small exhibitions as at a large one?—Yes, but we should never show at a small exhibition on such a large scale as we have shown at an international exhibition. We should not show in two or three sections. We had one here, for instance, at Earl's Court, but we only showed mining machinery and winding engines. If we go to an electrical show, we would show a high-speed steam engine for a dynamo, perhaps, and if we were to go to an agricultural show you would know what we should send there.

3598. For a firm that spends so much money as you do—and naturally so with the heavy class of goods you exhibit—you expect, of course, when you go to a large international exhibition to find the British organisation good and complete, and to find that you are given as little trouble and friction as possible?—Yes.

3599. That is what you would wish for as a British manufacturer?—Yes, I have the modesty to expect that.

3600. And I may put it that that is the least that you could expect in a large international exhibition?—Certainly.

3601. You would not expect any direct contribution from the Government towards your expenses?—No, I do not think we individually should. We are not a poor firm, and we could afford it. But you must admit that when you get your agents over from Australia or New Zealand, and when you get English residents in foreign countries coming, they will say, "Good gracious! look at that poor show; where is England? Now look at the Germans; at the Americans." That is continually said, and it is not nice.

3602. I rather take it that you put it down really to a question of organisation?—Yes. If you have better organisation it will be a fillip to English industry. That is my opinion.

Mr. Frederick Hooper, called and examined.

3603. (*Chairman.*) I think you are Secretary of the Bradford Chamber of Commerce?—I am.

3604. And that you have held that position for some years?—Yes, for seventeen years.

3605. The Bradford Chamber of Commerce has sent collective exhibits to several exhibitions, I think?—Yes. We sent exhibits to London in 1862, to Paris in 1867, to London in 1871, to Sydney in 1878, to Calcutta in 1884, and to Paris in 1900.

3606. What is your opinion about the effects of any particular exhibition on British trades, so far as industry is concerned?—It is somewhat difficult to gauge the effects of any particular exhibition, but so far as the woollen and the worsted trades are concerned, the

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general opinion is that recent exhibitions have had no effect whatever, beneficial or otherwise. As regards other trades, it is difficult to speak positively, as so little is known as to the general results. The same remark applies to the effect of exhibitions on our commercial relations with other countries.

3607. If that is so, you cannot tell us any particular industries which have benefited at recent exhibitions?—No, I am afraid not.

3608. In Bradford you have got a good deal of manufacturing, have you not?—Yes, we have.

3609. Have your products not been exhibited?—Yes, they have.

3610. Do you know of any advantages to the makers from exhibiting?—Up to, say, 30 years ago most classes of industry probably benefited more or less from exhibitions, because up to that time foreign nations were practically non-competitive.

3611. But in the natural course of events foreigners began to make things for themselves?—Yes. After the Franco-German war of 1870-71 they became much more active competitors, and I should say that since that time the trades which have chiefly benefited would be the engineering and machinery trades, particularly articles such as motors, pumps, and engines generally.

3612. Of course in Bradford you do not know much about the earthenware and pottery trades?—No, we have nothing whatever to do with trades of that kind.

3613. Then as regards the disadvantages of exhibitions due to copying, and so on, you probably have not anything to say?—A director of one of the largest silk mills in Bradford—I believe it is the largest silk mill in the world—told me that his concern had exhibited at some eight exhibitions and that they had suffered very severely from it. He stated that they would have nothing more to do with exhibitions.

3614. That was because his patterns had been copied?—They had been copied right and left, he said.

3615. I think patterns are protected, are they not, in most countries in the case of samples exhibited at an exhibition?—They are now, but I do not know whether they were then.

3616. Registered designs surely are protected now in most countries, are they not?—They may be nowadays, but might not have been in former days.

3617. Your friend's experience was some years ago, I take it?—Yes.

3618. Do you consider that the direct commercial results of exhibitions would warrant the Government in giving grants in the future, so far as textile productions are concerned?—So far as textile productions are concerned, I should say they would not.

3619. As regards the indirect effects?—As regards the indirect effects I think they might. A point arises there. Are the direct commercial results the only ones that should be considered in a case of this kind?

3620. I am asking you as to both—first of all the direct and then the indirect results?—Take the indirect first. Supposing another great exhibition were to be held, in Paris or New York for instance, under the patronage and with the support of the Government of the country concerned, would not the absence of British manufactures from such an exhibition, or the refusal of His Majesty's Government to recognise its importance, have a prejudicial effect upon our commercial prestige, and incidentally, perhaps, upon our political influence?

3621. Do you think it would?—I think it would; and notwithstanding the possibly negative results of previous exhibitions, I hold that in view of the considerations I have just named it would not be politic for this country to refuse to take its proper share in an exhibition favoured and supported directly by the Government of the country in which it is to be held.

3622. Assuming that public money in any case is granted for the organisation of official exhibits, do you consider that the grants which are made should be subject to any special conditions?—I do not quite understand what is meant by "official exhibits." So far as I know the British Government have never done anything in the way of organising exhibits. Of course, they have organised the British sections of exhibitions, but what have they done in the way of organising official exhibits?

3623. A collective exhibit is more or less an official exhibit. The Germans have gone in for collective exhibits?—I thought your question referred to the official exhibits of the British Government.

3624. Of course, in another way there are official exhibits—that is, exhibits from several public offices, such as the Board of Education and the Labour Department of the Board of Trade, and so on?—I am aware of those exhibits.

3625. My question refers both to the exhibits of departments, and to the German, and, I believe, to a certain extent, the French system of combined exhibits?—Combined exhibits have never been formed in England by the Government.

3626. Your combined or collective exhibits have been Bradford exhibits, have they not?—The combined exhibits of Bradford and other places have not been organised by the Government.

3627. But they have been organised by the local bodies?—Yes. I believe that the Governments of Germany, Switzerland, and possibly other countries have organised such exhibits, but the British Government has not.

3628. Would you make the Government grants for exhibitions conditional upon getting adequate space for British exhibits?—Yes. I think any grant made ought to be conditional upon the British Government receiving an adequate allotment of space, and I think that that space should be in a favourable position. At the last Paris Exhibition, for instance, French exhibitors were allotted more than half the entire space available in each section, and all the other nations—I think they were some 50 in number—had to take what was left between them.

3629. Then you would like some condition to be enforced to the effect that we should have a proper proportion of space kept for us before we agreed to take part in an exhibition?—I think that would be advisable. I know that the Bradford Chamber were hampered very much at the Paris Exhibition because we could not get the amount of space we wanted.

3630. Did you protest then?—We did not protest. We asked for 1,000 square feet, and were afterwards told that we could not have more than about 600 square feet. The consequence was, that we had to crowd our exhibits more than we otherwise should have done.

3631. Did that spoil the decorative effect?—It had a very detrimental effect upon our exhibits.

3632. Then there is another question to be considered, namely, whether the grant of public money should be, to a certain extent, dependent upon the number of people who come forward to exhibit?—I do not know about the number of people, but I certainly think something ought to be done in the way of selecting exhibits. I think all exhibits tendered ought to be, as it were, put through the sieve, and only the best selected. It is not desirable that everyone who chooses to send in a small exhibit to an international exhibition, merely as an advertisement, should be allowed to exhibit as a matter of course.

3633. Who would you make the authority for that selection?—It depends upon who would be the supreme authority of the exhibition. It would be left to them to appoint sub-committees, I take it, to look after these matters. It would be a matter of detail to be settled afterwards. I do not know exactly how it was done in Germany, but probably most of you gentlemen were at the Paris Exhibition, and you will remember, no doubt, how the German exhibits dominated nearly every department. I have been trying to find out how that was done. I got a report on the German exhibits, and found that the whole management, so far as I could ascertain, consisted of about sixteen men who were appointed by the German Emperor.

3634. We have had some little evidence, and we are going to have a good deal more, on the German and French systems; but of course you are quite right in what you say—that there was a sort of preliminary examination, which went on for two or three years, and the German Government said what should and what should not be exhibited?—I believe that was so.

3635. Would you like some sort of system of that kind?—I think it would be advisable. Exhibitions are very different now from what they were some thirty years ago. The Germans showed us a new way of exhibiting at Paris. They exhibited only the very best things that could be procured, and I believe the

men who were in charge of particular industries had instructions that they must make the exhibit the very best that was possible.

3636. So far as we have gone, we have found that the machinery people in certain branches seem to go on exhibiting very freely, but that when we come to the textile branches there seems to be a disinclination to exhibit; is that your experience?—There is a very great disinclination to exhibit textiles.

3637. Why is that?—There are several causes. First of all, in this country textile manufacturers do not export their own goods. That business is done almost entirely through the merchants. Then, again, textiles are in a different position from most other productions inasmuch as the demand for textiles depends very largely upon fashion. For instance, dress goods exhibited in the spring would, in all probability, be out of fashion by the following autumn, and *vice versa*. There would, therefore, be little advantage in exhibiting such goods. If a manufacturer were to exhibit a novelty which he thought would probably take the public fancy during the next season, that exhibit would be copied, probably in cheaper material, and the man's market would be spoilt. Another point is: Supposing I were a printer, and saw in an exhibition a new printing machine which I thought would suit me, I could buy one of those machines with the certain knowledge that I should be able to use it for ten, twenty, or thirty years; but, on the other hand, if I were to see certain dress pieces which I thought would sell very well, and were to order a number of such pieces, by the time I got them they would probably be out of fashion.

3637*. The fashion changes as quickly as that, does it, as regards Bradford goods which are mainly dress goods?—In most kinds of dress goods the fashion changes every season practically.

3638. How do the Bradford dress goods manufacturers extend their markets?—All the merchant firms in Bradford have travellers who visit every market in the world. Patterns are made in advance, and are taken out by these travellers and shown to probable customers all over the world. That is the way the business is done.

3639. And if a particular pattern is well received, he sends orders home?—Yes.

3640. To repeat and repeat?—Very frequently.

3641. I suppose he can easily take about with him plenty of patterns?—Yes. Patterns half a yard long, or even smaller, would be sufficient to show the pattern and style of material.

3642. That is so with dress goods, and with tailoring goods, too, is it?—It is so with most kinds of materials for men's and women's wear.

3643. So that there is no inducement practically to exhibit the patterns?—Not to exhibit textiles.

3644. I mean there is no inducement in the interests of the reputation of the firm?—If a manufacturer were to exhibit, he probably would get no benefit from exhibiting, the business being done through merchants. If a manufacturer were to exhibit, and a buyer saw the goods and wanted to procure some, he would order similar goods through a merchant, and, possibly, the actual manufacturer who produced the exhibit would not get the order, as it might go to a rival manufacturer. Very few manufacturers in the Bradford district do a direct foreign trade.

3645. So that the goods are not sold by the name of the manufacturer at all?—No; it is the merchant who sells them generally.

3646. And he gets them where he can get them best?—Yes.

3647. That is the way Bradford goods go into the market?—Yes. When the Bradford Chamber of Commence formed a collective exhibit for Paris in 1900, we spent nearly £2,000 on it. We really did not expect to derive very much material advantage from it, but thought it would uphold the prestige of the city as a manufacturing centre. That was our principal object in exhibiting.

3648. So there is no doubt about that—you want Bradford to stand high?—Yes. We thought it would not look well for an important place like Bradford to be unrepresented when the French and Germans and other nations were exhibiting goods similar to those which we make.

3649. Now, to pass to another subject, have you any opinion about the advantage or otherwise of giving awards at exhibitions?—I cannot say that I have considered that. So far as textiles are concerned, the principal advantage of an award is that a man is able to advertise on his letter paper or invoice heads that he received a gold medal or a silver medal at such-and-such an exhibition. I do not know that there is any other advantage from it.

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3650. Would that be an advantage for a manufacturer when getting orders from his merchants?—It would perhaps in other trades, but not in the textile trades.

3651. Do you think that those goods are sold on their appearance?—They are sold on their merits.

3652. Because they seem to fit the tastes of the day?—Yes. Fashion and tastes change so constantly that the goods have to meet the demand of the time. A man cannot trade on his past reputation.

3653. Are you holding your own in the face of French competition in new patterns of dress goods now?—The French goods used in England are not quite the same as we make in Bradford. The process of manufacture is different, and we really do not produce such goods—at least, we did not until quite recently.

3654. I thought you did now?—The Chamber of Commerce appointed a committee to investigate the question. That committee sat for about three years, and stimulated the manufacture of similar goods, but the production is still very small compared with the imports. We hope in time that we shall do better.

3655. I will not take you further on that point; I ought not to do so. As regards the organisation of exhibitions, do you think that a Royal Commission is the best method of dealing with them?—A Royal Commission seems to be too unwieldy and too large altogether to deal with a matter of this kind.

3656. But Royal Commissions act through committees of their own body, and take in other people—experts—do they not?—Those committees do not meet very frequently, I think.

3657. I asked you what you thought of them?—I do not think they are of much practical utility.

3658. What should you substitute for a Royal Commission? You would have Government control of some sort, I suppose?—Certainly. My impression is that commercial men would have much greater confidence in an exhibition if it were managed by someone who was in touch with commercial affairs, such as you, Sir, or Mr. Wilson Fox. What I had in my mind was really the Board of Trade Advisory Committee on Commercial Intelligence. You have there a committee representing all the trades in the kingdom, and if it could be induced to take up a matter of this kind I think it would have a very beneficial effect.

3659. They could keep in touch from exhibition to exhibition through a very small nucleus staff, I take it?—Yes. That Advisory Committee, I take it, would be kept alive from one exhibition to another. I think it is intended to be a permanent committee.

3660. At any rate, you think that body should be in connection with, or in close touch with, the Advisory Committee?—Yes, I do.

3661. And there should be on it some persons who have had dealings with commercial bodies all their lives?—There should be on it someone who is in touch with commercial bodies, not necessarily someone actually dealing with them at the time.

3662. Do you think that more money would be wanted, or less, than the present expenditure?—It depends upon what you do with the money. If you were to make grants to chambers of commerce and other bodies, for instance, for the formation of collective exhibits, you might want more money. I do not know exactly how the money has been expended in previous exhibitions.

3663. Do you think that we should get collective exhibits from several of the principal industrial towns, if the expenses, or part of the expenses, were paid out of the public funds?—I think you would get them much more readily than you do at present. If, for instance, the Royal Commission, or the gentlemen who are managing the exhibition, could say to a large town like Bradford: "We will give you £1,000 towards the expenditure and provide you with show-cases,"

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then I think you would get a very good exhibit from Bradford—and from other towns in the same way.

3664. Take Huddersfield, for instance, which is very much interested in tailoring goods, is it not?—Yes.

3665. Would not a town like Hudersfield be likely to take an interest in having a collective exhibit to show what Huddersfield can do?—You mean if a grant were made?

3666. If a grant were made?—Yes, it would.

3667. Do you think that would be the best chance of getting hold of the textile industries?—I think you would get them more readily in that way.

3668. I suppose they would not be large collective exhibits?—It would depend on the town and on the character of the trade. Huddersfield, for instance, produces only two or three different makes of goods, whereas Bradford makes a very large variety. The Bradford exhibit therefore would be very much larger than the Huddersfield one in proportion.

3669. But still you see more chance of getting town collective exhibits than you would of getting individual manufacturers to exhibit?—Yes. Besides that, collective exhibits lend themselves more to spectacular effect than do individual exhibits, so that it would be an advantage if you could get more collective exhibits. There were very few at Paris, I remember.

3670. Do you remember whether all the names were given in the collective exhibits?—They were not given in the Bradford or in the Huddersfield exhibit—in fact, when we formed a collective exhibit it was arranged that no names whatever should be given, neither merchants' nor manufacturers', and that if any inquiry was made the inquirer should be referred to the merchants.

3671. Do the merchants or the agents object to exhibits by the manufacturers?—Not at all, if the manufacturers wish to exhibit in their own names.

3672. They are not afraid of people going direct to the manufacturers and leaving out the merchants or the agents?—Not at all. As a matter of fact, manufacturers generally decline to do direct business. There are very few manufacturers who do a direct foreign trade.

3673. (*Mr. Wilson Fox.*) I understand that the system which obtains as between the merchant and the manufacturer does away practically with the personal element in showing, as far as the manufacturer is concerned?—Yes, at exhibitions.

3674. And the personal advertisement under that system is absent to a large extent?—Yes.

3675. Therefore, it is no advertisement to the manufacturer that will help him in pushing his goods abroad?—Not at all.

3676. And it is no advertisement to him if the merchant gets the medal?—No.

3677. The merchant would get the medal, would he not?—Yes, if he exhibited in his own name.

3678. It is only a very indirect advantage to the manufacturer in showing, or rather in sending an impersonal exhibit, in that it may induce foreigners to buy British goods generally as against foreign goods?—Exactly. It is for the good of the trade as a whole instead of for the good of an individual firm.

3679. A collective exhibit would be comparatively easy to get up in a district where goods of the same character were largely made, as in Bradford, would it not?—Yes.

3680. But in many trades there is no particular centre for the trade, is there?—That is so—in engineering, for instance, in the leather trade, and so on.

3681. Therefore it would, in such cases, be much more difficult to get up a collective exhibit, and, further, you would not have the patriotic motive on the part of the manufacturers of advertising a particular district, say Bradford?—That would be so in several trades, no doubt.

3682. Therefore the collective exhibit would be only really easy to get up in districts which represent a particular trade?—Yes. No doubt collective exhibits would be most readily formed in the textile industries—wool, cotton, silk, and flax.

3683. But it might be also, might it not, in the smaller steel trades, such as nails, needles, bolts, and nuts?—It might be so; and also in the pottery trade.

3684. Do you think that chambers of commerce, as a rule, would be competent to get up a collective exhibit? I can understand that Bradford could do it, for reasons which we have been discussing, and that Manchester could do it, for reasons which we have been discussing?—I think they would.

3685. I am not saying they would not, mind you—I want your opinion?—Certainly the larger chambers would, but the smaller chambers possibly might not care to have an exhibit for such a small area as they represent. In allied trades, however, the smaller chambers might combine to form collective exhibits.

3686. But you might contemplate that a better exhibit might be got by handing a specific sum over to a chamber of commerce than by having a central body in London, which is not particularly acquainted with the trade?—It would have to be left to the local body to organise the exhibit.

3687. Would you contemplate that a chamber of commerce, if they had a sum handed over to them, would be more competent to get up an effective exhibit than a central body in London?—I should, decidedly.

3688. You gentlemen in Bradford, I understand, if you do show, show more for the patriotic reason of advertising your town than for anything else?—Yes.

3689. There being no direct benefit to you or to the people there, am I right in understanding that they would not view with favour in those circumstances showing very frequently at large international exhibitions?—It would necessitate a great deal of trouble.

3690. They spent money purely for patriotic reasons and not for business reasons?—Apart from the question of money, there is a good deal of work in connection with getting up a proper collective exhibit.

3691. Certainly; that adds to the force of the argument?—So they would not care to have them too frequently.

3692. Do you think Bradford would be prepared to send in such circumstances as you describe, but not too frequently, a collective exhibit to a large international exhibition?—Bradford people are not favourably disposed towards exhibitions generally, for the reasons already stated, but I think they might occasionally be willing to exhibit at important exhibitions.

3693. As the secretary of the Chamber of Commerce, how often would you care to organise a collective exhibit to send abroad from Bradford?—It depends very greatly upon what kind of exhibition it is. If it is a very important one, for instance, such as Paris or Chicago, we might consider it advisable to have an exhibit, although we had had an exhibit at a previous exhibition some few years before. But with the smaller exhibitions we perhaps would not consider it necessary unless it had been a long time since we had had a previous collective exhibit.

3694. What sort of period of time would you personally care to have between each exhibition as secretary of that chamber? Would you say once every five years, or once every ten years, or what?—It might perhaps be some indication if I were to say that we exhibited in 1862, in 1867, in 1871, in 1878, and then in 1884—that is roughly about every five years. Then we did nothing further until 1900, and we have done nothing since. Ten years, I should think, would be sufficient, so far as the woollen and worsted trades are concerned.

3695. I am talking only about the woollen and worsted industries. You think one every ten years would be sufficient?—Yes.

3696. That would be purely for the purpose of advertising Bradford?—Yes, Bradford and district.

3697. For the purpose of pushing your goods you would appoint travellers, I suppose?—That is done every day.

3698. That is your ordinary mode of doing it?—Yes.

3699. I believe that you have your designs of patterns for fashions ready some years before, have you not?—No, not some years.

3700. They do in some trades, do they not?—They may in some trades, but in the Bradford trade patterns would not be made some years before, but probably

not more than one year before the goods are actually placed on the market.

3701. I thought that sometimes in Huddersfield it ran as long as two years in the case of the designs?—It may be two years there, but very seldom is it as long as that with us.

3702. It is important to your trade not to disclose your patterns until you are just going to put them on the market, I suppose?—It is of very great importance not to do that.

3703. (*Mr. Algernon Law.*) In the case of silk, I should like to know whether it is the goods or the machinery which is exhibited?—The goods alone; the machinery would not be exhibited.

3704. Then the patterns of these goods is that which has been copied?—The patterns and the style of the goods.

3705. But they could not discover the process by which they were made, could they?—They could form a pretty good idea of the process by examining the pieces.

3706. Would you restrict the exhibits in the British section to collective exhibits, where that system is applicable, or would you allow individual exhibits?—would only allow individual exhibits in certain cases.

3707. Would you cut out individual exhibits altogether?—Not necessarily. Some firms would make a very good individual exhibit. For instance, John Foster and Sons, of Queensbury, are large manufacturers of mohair, alpaca, and silk. They had a capital exhibit at Paris, and that was an individual exhibit.

3708. If there were a grant given for the purposes of collective exhibits—if you admit that principle—would you extend it also to the individual exhibitor who would not come in to a collective exhibit; do you think he ought to be assisted?—I think a man who did not care to go into a collective exhibit should bear his own expenses.

3709. Do you think in those cases where a collective exhibit was really not possible, where it was in a branch of trade where you could not well have a collective exhibit, that a grant should be made?—In such cases a grant might be made, if necessary; but if a man were allowed to attach his own name to an exhibit it might be a very good advertisement for him, and he would probably prefer to exhibit on his own account entirely.

3710. Do you think in those cases we ought to pay the freight?—The freight is a very small matter.

3711. That is to say, it is so in textiles and that sort of thing?—Yes.

3712. But in other trades, such as the engineering trades——?—That is a different matter.

3713. Do you think we ought then to contribute in order to form an effective exhibit?—If you found you were not getting suitable exhibits, the only way to get them would probably be by making a grant or giving some assistance.

3714. (*Mr. Malcolm Ramsay.*) At Paris was the collective exhibit mainly cloth? Was there any machinery shown?—No machinery whatever was shown by Bradford.

3715. It was merely the finished goods?—Merely the finished pieces, dress goods, linings, trouserings, coatings, and so on, as well as yarns.

3716. You are speaking here of a very large industry; can you give us, approximately, a figure showing the size of it?—I estimate the total output of the woollen and worsted industries at about £65,000,000 per annum. When the returns in connection with the Census Production of Act are available we shall know pretty well how matters are, but at present an estimate is more or less guess work.

3717. There are other trades which are very much in the same position as the one which you are particularly acquainted with, are there not?—In what respect?

3718. I mean as regards exhibitions, such trades, for instance, as those which are conducted not by the manufacturer, but by the merchant. I suppose the cotton trade is very much on the same footing?—I put all the textile industries together. In the cotton trade I should say manufacturers do a larger trade direct than is the case in the woollen and worsted industries.

3719. I understood you to say that as far as direct commercial results were concerned, the textile industry gets no advantage from the money which has been spent by the Government on exhibitions?—That is what people say. I have consulted several firms who have exhibited, and they all tell me they have never been able to trace any results whatever from it.

3720. Are you able to say whether other trades have had a direct benefit?—No, I could not say as regards other trades, as I have no personal knowledge of such trades.

3721. We have been told by various witnesses that certain trades do benefit?—It is quite likely in the case of machinery, for instance, that they do benefit.

3722. I was going to ask you whether it might not be the case that in giving grants for exhibitions the Government was to a certain extent subsidising one trade, and others were being left out in the cold?—If grants were given they would have to go all round, of course.

3723. I meant to say that participation in exhibitions is not altogether an ideal way of helping the trade of the country all round, because there are certain very large and important industries which can get no direct benefit from such expenditure?—That is so.

3724. Do you agree with that?—Printing machines I mentioned a short time ago. The maker of an article of that kind would derive far more benefit from an exhibition than a maunfacturer of textiles would.

3725. Have you any opinion to express as to whether the grants of public money which have been made to recent exhibitions have been adequate or not?—No, I have no knowledge whatever on that point.

3726. (*Mr. Harris.*) You have indicated that you do not think that exhibitions suit textile goods on the whole. Assuming for a moment that the British Government came generally to the conclusion that the exhibition of these industries did not re-act favourably upon trade, and decided to drop out from exhibiting altogether, how would you view that?—I think it would have a prejudicial effect. As I said a short time ago, both on account of our commercial relations and our political influence, I do not think we could possibly refuse to take part in an international exhibition supported by the Government of the country in which it is held.

3727. Apart from that reason, and speaking as a person who is anxious that Bradford should have a collective exhibit——?—I am not at all anxious that Bradford should have a collective exhibit. I said the principal reason we did exhibit was on account of the prestige of the place. It would not look well for a place like Bradford, which is really the centre of the woollen and worsted industry, not to be represented at an important exhibition like that of Paris, where the French industry was largely represented.

3728. I assume you mean that if Bradford had stood out, it might have lost trade by it?—I would not say it would have lost trade; it might have lost in prestige.

3729. But prestige, I suppose, can be translated into profitable trade eventually, can it not?—Not necessarily. It has something to do with trade, no doubt.

3730. In exhibiting for the reputation of Bradford, or, as I think you put it more generally, in urging that it is desirable to select exhibits, you afterwards suggested a sort of impersonal collective exhibit. What is your view of the effect that that would have upon the smaller firms who are excluded by your process of selection?—I do not think it would affect the smaller firms of manufacturers in the textile industries, because the trade would go to the district, and the smaller manufacturer would get his share. The small man only exhibits as a sort of advertisement for his own little concern.

3731. Do you mean that if you get the district trade properly advertised, we will put it, the small man will get his turn eventually?—Yes, in the same proportion as the large one.

3732. You made a remark, I think, in connection with the Paris Exhibition, that the German exhibits dominated every department?—Nearly every department, yes.

Mr. F. Hooper. 28 Feb. 1907.

3733. Did you form any opinion, first of all, as to the gain which the general prestige of Germany gathered from that, and, secondly, as to the gain which German traders personally would get out of it?—I cannot say what material gain they derived, but there is a very general impression that the commercial prestige of Germany gained enormously owing to those exhibits. I should imagine it would also cause an increase in their trade for certain kinds of goods, for certain kinds of machinery especially.

3734. You did not, as a matter of fact, find that certain British firms thought they had lost trade to Germany?—I have not heard of any such cases.

3735. Continuing your reference to the great contrast between Germany and England at Paris, I think you gave testimony to the effect that the contrast was really painful?—I do not think I said so, but I may have put it in the *précis* of my evidence. That remark, however, applied more particularly to the contrast between the show-cases in the textile sections and the general decorative effects.

3736. Were you aware that the British Government made a grant of £100,000 to support British industry at that exhibition?—Yes, I am aware of that.

3737. Would you suggest that if that money had been laid out more carefully we could have made a better show for the money?—I think so. £100,000 seems a large sum of money for what we saw at the Paris Exhibition. I do not know exactly how the money went, but it seems rather large.

3738. Do you think Germany spent a great deal more?—I do not know what amount Germany spent.

3739. I understand that Germany spent three times as much as we did, so that might account for the difference?—Yes, it might. I should like to add that the views which I have expressed here to-day are mainly my own personal opinions, and are not necessarily those of the Bradford Chamber of Commerce.

TWELFTH DAY.

Thursday, 7th March 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
The Right Hon. Sir James Kitson, Bart., M.P.
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Mr. S. J. Waring.
Mr. U. F. Wintour (*Secretary*).

Mr. Ambrose Heal, called and examined.

Mr. A. Heal.

3740. (*Chairman.*) I think you have been in business some considerable time?—My people have since the beginning of the last century practically.

3741. You have been concerned in exhibiting at some international exhibitions abroad?—Yes. I may say that I have no personal knowledge of the exhibitions previous to Paris, 1900—that is, those from 1851 to 1867.

3742. You know that your firm exhibited in London, 1851; Brussels, 1856; London, 1862; Paris, 1867; Paris, 1900; and Glasgow, 1901?—Yes. Our exhibit from the Paris, 1900, Exhibition went straight to Glasgow.

3743. What were the goods exhibited by your firm, and what was their value?—In every case it was bedroom furniture, and the value of the exhibits was something over £1,000 usually.

3744. Have you had any increase of business with foreign countries which you can directly attribute to the exhibition of your goods and their inspection by visitors at such exhibitions?—With regard to the last Paris Exhibition there was a certain increase at the time, a certain amount of local trade done, but I cannot really say that that has been kept up; it was a sort of flash in the pan, I think. There was a certain number of goods actually sold from the place that we had there.

3745. Did you get business afterwards?—No, I cannot say that we have, not to any extent. Of course the duties and so forth are very heavy on furniture, and that practically prohibits France dealing with us to any great extent.

3746. Still you send a good deal of furniture abroad, I think?—A certain amount, but we do not find that we have done any more since the exhibition.

3747. You have not sent more to Spain and Portugal?—Not recently. As a matter of fact, our foreign trade is very small; we are a retail house, and we do not advertise in foreign countries, except inasmuch as exhibitions may be said to be an advertisement; beyond that we do not advertise.

3748. If you have had no advantages from exhibiting, I suppose you have had no disadvantages?—There is a certain amount of disadvantage, if one may call it so, in a limited way; we take a certain amount of pride in patterns that we have, and take a good deal of care to get individual designs, and that sort of thing, which are thrown open more or less common to everybody who goes to an exhibition.

3749. Your things have been copied occasionally?—Yes, I have found that; I have been absolutely able to trace that in one or two instances. That is a thing one is always open to. Even in the more limited field at home here one is open to that sort of thing.

3750. They can come and see the things in your shop windows?—Yes, and they write for our catalogues and that sort of thing.

3751. You have had awards at exhibitions, I suppose?—Yes, I believe we have at all, or most of them, of one sort or another. I do not know whether they do have any moral influence for good on one's reputation; I do not think they do.

3752. We have heard in some cases they have great influence, but you have not found that so?—No.

3753. You do not put them on a card?—At one time, before I came into the business, they were in the habit of making more use of them than we do now.

3754. Now you do without them?—They were displayed on the notepaper, and that sort of thing, but we really did not think it did any good, and we dropped it.

3755. Have you ever been induced to buy from British or foreign manufacturers to any considerable extent as the result of seeing their goods at any exhibition?—No, I may say we have no occasion to do that.

3756. You have no occasion to do that?—No, there is nothing we want to buy from abroad.

3757. Can you say that you have derived instruction and knowledge as to methods of manufacture or economy of manufacture?—To a very small extent, and that only with regard to this, that one gets hints about a design occasionally.

3758. Are we to take it that you have discontinued exhibiting now?—Since Glasgow or Paris, I do not know whether you call Glasgow an International Exhibition, but since Paris I do not know that there has been much opportunity.

3759. You did not exhibit at St. Louis in 1904?—I did personally, because I belong to a society called the Arts and Crafts Exhibition Society, and I had the privilege of exhibiting something in the collection that they sent out.

3760. That was probably really applied art that you exhibited as shown in furniture?—Yes. You would not take our ordinary exhibit as coming under that heading?

3761. I would not say yours would not, but some furniture I have seen would not?—Quite so. It went out with that label on it.

3762. Anyhow you sent them under that designation?—Quite so.

3763. You have not found the advertisement of exhibiting worth the great outlay?—It is very difficult to gauge what it is worth. Direct results are almost impossible to gauge. The amount of direct business that we did in Paris certainly was not worth it, not worth one-tenth of the expense to which we went, but we hope there was a certain amount of lasting influence which does bring in something, but it is very difficult to check results from any sort of advertising.

3764. I gather that you are ready to criticise, and we are very anxious to hear your criticism, the way in which British sections have been managed and arranged in the past; I think you say also the British sections have been badly managed and badly arranged?—Yes. I must ask your indulgence for rather a hazy memory of what took place in France, because it is some six or seven years ago, but our impression, and I think the impression of other exhibitors with whom we came in contact in our particular section, was that the section generally was not as well arranged as others, particularly the Austrian section. There seemed to be no general idea or scheme for the arrangement of the whole of that section such as other countries were able to institute and carry out. In the Austrian section, for example, there was a decorative screen enclosing practically the whole of that section, which entirely fenced it off from the other countries. When you got inside that screen you knew you were in quite a distinct part of the exhibition; it was different to any other part you had been into. There was a central court there, which was very well treated from an architectural point of view, and off the court were the different exhibits; you entered them, I think, from a sort of doorway, so that really as you entered your impression was of a central hall, off which there were different rooms, and as regards the central hall and the arrangement of the outside screen there was a general idea of harmony about the whole thing.

3765. You are speaking of the Austrian exhibit generally, not only the furniture exhibit?—The Austrian section of the Furniture and Decoration, I think they classified it under Furniture and Decoration.

3766. Of course there was a large glass and china exhibit as well, and there was leather also, if I remember rightly?—Yes.

3767. Was that all done by the Austrian authorities?—It had that appearance. I do not know who else would have gone to the expense of arranging the whole of this hall unless it was done by the nation.

3768. In your own case, did you do what decoration there was?—We put up one of these shanties like most of the other furniture people were driven to put up; that is to say, you had to make your own background, there was no background for standing furniture against; you had to put up your own background, and one naturally built a room of some sort.

3769. Do you think that it should have been arranged by the Royal Commission and their committees in one harmonious whole for all the exhibitors?—I do; it was very haphazard. I daresay you remember the sort of impression that you got; there were all these little chalets or shanties dropped about, and there was no idea of continuity about the whole thing, or any sense of design about the way in which these things were arranged. One could see very well that they all differed so very much one from the other that it quite destroyed any general plan there might have been at the bottom of it.

3770. That brings me to the next question. Do you think that the organisation generally could have been better arranged than it was? Could we have had a better Commission or Committee?—As regards the assistance one got from the Commissioners' office, the people who were there, the assistants to the Commissioners, and so forth, did everything in their power; it was simply amazing the amount of patience they exercised with the number of inquiries that were made, but there did not seem to be enough people about to answer the inquiries. I remember what it was like when you went in there; it was usually the case if you wanted to find out something you did not reckon you could get the information for two or three hours; a butler showed you into a sort of waiting room the first time you went there, after that you dodged the butler if you could and waited about the passages and tried to catch the man you wanted as he went from one department to another.

3771. Who did you want to catch?—The Commissioner or the particular assistant you wanted to see; if you proposed to get to see someone you rather relied on chance than wait your turn; if you took your turn you invariably had to wait a couple of hours or so to get the information you wanted.

3772. You think there was not enough staff?—I do not think so. I know I remember an enormous amount of pressure at one particular time.

3773. I suppose that was when you were placing your goods mainly?—Yes; it struck me that it would have been of enormous assistance to exhibitors if there had been some sort of bureau for the provision of local labour.

3774. At the Exhibition?—In connection with the British Commission.

3775. You mean in Paris?—Yes; people like ourselves were landed there with structures to put up and things to arrange. We took our own woodworkers, and that sort of thing, but one was unable to take over men for every trade. I am thinking particularly now of the plastering we had to get done, a ceiling which had to be put in; we did not take over English plasterers, we took over our own woodworkers, joiners, and so forth, but I remember the great difficulty we had in getting that plastering done, and the terrible way in which we were "done" as regards the price at which we could get it executed.

3776. There was no office where you could apply to get workmen recommended to you?—I do not know whether that would be possible at future exhibitions.

3777. It is a very good suggestion; I do not think we have had it before. You had not any agent helping you, not one of the exhibitors' agents there?—No, we had our own man there; and I was over there myself for three weeks putting this up. I do not know what agent one could have employed that would have been of any use, but we certainly did not do so.

3778. Do you think that we should hold aloof from international exhibitions, from your experience in the past?—I do not think one can afford to do without advertising in any sort of business, and of course we look upon it at all events as a form of advertisement, and I do not suppose the nation can afford to ignore the use of advertisement any more than we private traders can.

3779. You think in a wider sense that the country ought to be efficiently represented?—That is what I am driving at.

3780. I rather gathered you do not attach much value to the award of prize medals?—No; that was a point we touched upon just now.

3781. Do you think they were fairly awarded?—I have no doubt they were, according to the lights of the people who awarded them; but it seemed to me that the only or the principal thing for which one was awarded a medal, and so forth, was for having spent so much money on the Exhibition.

3782. You thought they were awarded from the value of the exhibit?—From the value and the expense that the exhibitor had gone to generally.

3783. Not to the beauty of the exhibit entirely, you mean?—Not to the beauty, nor to any merit of workmanship there might have been. In that connection I have made one or two notes. I am of opinion that in the section of Applied Arts, at all events (I am

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taking it that we may include furniture under that heading), it might not be practicable in all sections, but in this section I think there should be some Committee of Selection, a Hanging Committee, just as there is at any other selection of arts and crafts work, to preserve a certain standard of excellence of design and work. If a section of the exhibition is a national exhibition, surely some care should be taken to preserve the dignity of the nation in the representation of its work. Anybody who chooses to buy space, no matter what he is going to exhibit, should not be allowed to exhibit.

3784. Did you care much about the German exhibit?—No.

3785. You are aware that they had something of that kind?—I was not aware of it.

3786. Before the Exhibition they selected the exhibits; it was not all goods that were allowed to go there?—I am very glad to hear that was so.

3787. You think something of that sort should be done over here?—I feel most strongly about that.

3788. That some organisation, Government or otherwise, should make a selection?—Yes. Of course, as you know, in any exhibition of painting or sculpture, or anything of that sort, such a selection is exercised, and sometimes the thing is left open for people to send in, whoever likes, or it is a matter of invitation, and those people who are invited can exhibit; I do not know whether that would be practicable. In the Art Section I believe the only work which is accepted is that which is selected from the work sent in by specially invited artists. This perhaps would not work in the Applied Arts section, but some invitation or special inducement might be held out to bring in pre-eminently successful workers in each trade. I think one must admit that the International Exhibitions do not hold out much advantage to a small man who is really doing good work. He cannot afford, or possibly he does not care to spend money on an exhibit of that sort.

3789. That brings you rather to the idea of having a collective exhibit assisted by the Government?—Yes, that is rather what I was coming to; some invitation or some special inducement might be held out to any people whom it would be thought desirable to include in a national exhibit, and possibly those invited exhibits might be put in a separate section apart from the ordinary trade exhibits.

3790. You think in the work you are interested in you might have collective exhibits with great advantage?—I do certainly.

3791. To bring out what is really good and beautiful?—Yes.

3792. Did you see many things which you thought ought not to have been there in your section? Did you think there were a number of things that were inferior, you need not mention names?—Yes, I did.

3793. You saw things you were not proud of as being from this country?—Yes. We exhibited things ourselves which, if there had been any Committee of Selection, ought not to have been passed, I think. They were simply things of ordinary commerce, such as I could pick out of our shop in Tottenham Court Road any day of the week. That was apart from our particular exhibit, because somebody next door did not turn up or something of that sort, and we got some extra space allotted. It was offered to us and we took it and filled it with something, and that was really the most profitable part of the exhibition to us.

3794. You did it, but are not proud of it?—I was not myself. From a national point of view it did not do us any good, although from our particular point of view we made more sales from that part of the exhibit than from our exhibit proper.

3795. Altogether you were not proud of the British section, I am afraid?—I was not.

3796. Other exhibitions you have not seen much of?—No; I have only seen that in Glasgow.

3797. Glasgow was very small comparatively, but very good?—Yes. As I say, we have sent over things to St. Louis and also to the present exhibition which is going on in New Zealand now.

3798. You have sent to New Zealand?—As a member of the Arts and Crafts Exhibition Society.

3799. You have been sending nice things there?—Yes, we have sent only through the society; we have not touched that on our own responsibility.

3800. That is a sort of collective exhibition of arts and crafts?—Yes. Only invited people can exhibit; not every member of the society has a right to exhibit, but only those people who are specially invited by the committee.

3801. (*Mr. Waring.*) Your idea with regard to the arts and crafts and its cohesive form could only be applied, I take it, in the case of small firms, who could not afford to have, as you say, a large exhibit?—I do not know why it should only apply to small firms.

3802. Is not this a difficulty—the Arts and Crafts practically represents one form of art or one class of art?—Of course, one cannot blind oneself to the fact that is very narrow.

3803. It is in a school, it is a definite school?—Yes.

3804. Perhaps you could tell us how you could apply the same principle to something which must be very much more comprehensive in its form. I quite agree with you that in exhibits like the Arts and Crafts' it is much better in a cohesive form, definite and distinct by itself. I am not quite clear, and I should be glad if you could enlighten me as to how you think a selection committee could operate with the kind of goods a number of firms should exhibit. How do you think that would operate?—I think it must be left to the larger firms to make their own individual efforts, apart from this select exhibit. That is really the national exhibit, the thing which has the nation's approval and sanction as being the best work that the nation is turning out. After that is done, then your large firms shall be allowed to do what they like on their own account.

3805. I take it your views are practically that there are two classes of exhibits in this English section, wherever it may be; one is the national exhibit, which would be controlled practically by the Government?—Yes.

3806. And I take it your view is that the cost of it should be largely contributed to by the Government?—I should think so.

3807. You think also, in addition to that, there ought to be a representative exhibition by practically anyone that likes to put forward their goods?—Yes; I should like to see even that very much more controlled.

3808. That is the difficulty. I am in sympathy with you about the character of goods that should be exhibited, but when you bring it to the practical test of how to exercise control, it is an exceedingly difficult point?—Yes.

3809. I do not quite see how it can be done; I think perhaps you can assist us?—I have not thought the matter out to that extent. I threw it out as a suggestion as something that might be desirable; but whether it is really practicable or not I should be very glad to know.

3810. I take it you bring forward the Austrian Court as a case in point in the Paris Exhibition; I think both that and the German Court come under the same category. Was not the success of that court largely owing to the artistic control of the court and the manipulation of the design of the court itself?—Yes.

3811. Does not that emphasise the importance of arrangement as much as the exhibits in detail?—Certainly. I was not at all referring to the exhibits in detail, but merely to the general arrangement.

3812. Therefore, you are strongly of opinion that, from our standpoint, anything we do in the future should be controlled by some representative body who would bear that well in mind, and give much more consideration to the court than they have done in the past?—Yes.

3813. You are very strongly of that opinion?—Yes. I am glad you remind me about that, and correct me with regard to the individual exhibit, because that certainly was not the impression I wanted to give; it was the harmonious whole, with a certain background running round the whole thing.

3814. I think you are quite right in emphasising that point. It has a dramatic effect that tells largely upon the visitors to an exhibition, and that dramatic effect is very largely gained by the way the court itself is

handled?—That was, I take it, due to the nation, and not to the individual exhibitors.

3815. Were you struck with the German Court there?—Yes, I thought it was very good.

3816. There was the same sense of completion?—Yes.

3817. You were strongly impressed with the "incompletion," if one may use the word, that characterised the English Court?—That is so.

3818. You say, with regard to the general control, that so far as individual help could be given it was satisfactory?—It was extremely so. The amount of courtesy and patience with which one met was extraordinary; I could not help remarking that.

3819. Your point is that there was a lack of organisation, or there were not sufficient people to cope with the work they had to do?—That is rather what I should say.

3820. That, again, would come under the control of the powers who dominate the exhibition; it should have been better organised—that was your point?—Yes.

3821. And there should have been much more help?—A larger staff.

3822. There should have been much better scheduling of labour bureaus, and the assistants should have been a much better organised body?—I do not think there was anything in the form of a labour bureau.

3823. I do not think there was. That is your point as an exhibitor?—Yes.

3824. It would help you largely, and with such facilities as that you would be inclined to exhibit in the future?—I think so. The ordinary Englishman, who is a terribly helpless person when he is the other side of the Channel, is in a very great disadvantage where he has to get temporary labour. I know the man I sent over there was completely at sea. He could not speak much French, and that sort of thing, and I had to go over and extricate him, and I found it very difficult to do that.

3825. (*Mr. Malcolm Ramsay.*) You do not seem to have taken part in any international exhibition between 1867 and 1900?—That is so.

3826. Can you tell me why that was?—I am afraid I cannot.

3827. Did you, for instance, think of going to Brussels in 1897?—No.

3828. Or to Antwerp in 1894?—No. I know something about what was going on then, but we had not really any serious thoughts of doing that; in fact, I think my people had dropped the idea of international exhibitions altogether until I took the matter up myself in Paris. There was really nobody who was sufficiently interested in that sort of work to do it.

3829. I gathered from what you said to the Chairman that, so far as your own firm were concerned, you were a little disappointed with the results of the Paris Exhibition. Is that so?—I think it is almost impossible to trace direct results from any form of advertisement, and exhibiting at an exhibition of that sort is more difficult than any other form of advertising to trace results from.

3830. Are you inclined to continue the policy of occasionally exhibiting abroad in future?—I do not know that I am prepared to say one way or the other. After all, one must judge every exhibition on its own base, as to where the exhibition is, and so on.

3831. I suppose you would regard Paris as the most suitable place for a foreign international exhibition?—I suppose so; it is more get-at-able, and has more direct results.

3832. Do you consider that you got any benefit from the Government grant that was given for Paris in 1900?—No.

3833. Except the indirect assistance that the executive gave you?—From the Government grant?

3834. Yes; do you think that that helped your exhibit at all?—I do not remember how we were affected. How should we be affected by the Government grant directly?

3835. Do you think you had a better opportunity of showing your goods than you had at exhibitions which were privately organised—take Glasgow, for instance. You were not relieved of any direct expenses at Paris, were you?—No, the only expense of which we were relieved was the actual rent we paid for ground. I think we paid no ground rent there, and at Glasgow we did, I fancy.

3836. You were speaking just now about the organisation, and suggested some form of selection. Do you think that exhibitors generally would agree to submit their goods to a Selection Committee and stand by the result?—I am not making that suggestion as being the only form of exhibit which the nation is to make, but there should be some portion of the nation's exhibit which should be set aside as a selected exhibit.

3837. Is what you would suggest a combination of the selected and the individual?—Perhaps that is the easiest way to do it.

3838. I suppose the difficulty would be, would it not, that the larger firms might not like to submit their goods to a selection, and to have a similar article of equal quality, of a small man chosen, in preference of theirs, for exhibition?—I suppose that any person who submitted himself to a committee of that sort is open to that, but provided it is a good Selection Committee I do not think one need be frightened of that.

3839. The Selecting Committee, I take it, would not make its selection for the purpose of advertising the individual, but rather to get a collective and representative exhibit; they might take, for instance, a chair of one manufacturer and something else of another manufacturer, although their goods were equal in quality?—Yes.

3840. Would you, for your own part, be inclined to come into a collective exhibit of that kind, or would you prefer to exhibit independently?—I think we should probably do both, but I should certainly be very keen on getting something exhibited by that committee; I should feel that it was an honour, and the best form of exhibiting, apart from any other thing.

3841. Would you have any objection to telling us what your exhibit cost you, say, at Paris?—It has been put down at £1,000, but that is a rough figure.

3842. I thought that was the value; is that what it cost you to send it over and to keep it there?—The exhibit was not only the actual furniture, but the room and the decoration of the room. I have no figures here as to what the exhibition cost us; I could ascertain that.

3843. (*Mr. Harris.*) I think you stated to the Chairman that as a sort of offshoot from your main exhibit you took up certain things of "ordinary commerce," as you phrased it, and did rather well over that?—Yes.

3844. Do I rightly understand you that you rather deprecated having to do it at all?—No, I did not mind doing it; we were rather glad to do it; we did not have to do it; there was the space that was offered to us, and as we had originally applied for very much more space than we got, like everybody else, we rather seized upon the opportunity of having this extra space.

3845. I think you remarked it did no good from a national point of view?—That is so.

3846. But is it your view that the exhibition is to be looked at chiefly from a national point of view—I mean your own private view, or may I put it this way—would you say that an exhibition in your opinion has no relation to commerce?—No.

3847. You will not go so far as that?—No, but I can see two features of it, both of which might be borne in mind; I think there is the commercial aspect and the better or higher aspect of it. I think it should be the nation's effort to show the best work at an exhibition, and to feel that at all events it was well represented at the exhibition. I do not think that is so of most international exhibitions. Take stained glass for example. I do not think that really the best men who are working stained glass in England now exhibit at those exhibitions; you get certain firms exhibiting under their own name, but I do not think really that the best stained glass which England produces at present is represented at foreign exhibitions.

3848. Do you happen to remember what you exhibited which you described as things of "ordinary commerce"?—Perfectly well; it was a lot of plain, simple, decently-made oak bedroom furniture, but there was nothing about it that would excuse it being sent to an exhibition as an exhibit; you might just as well have seen it in Tottenham Court Road.

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3849. From your point of view as a furniture manufacturer, an exhibition is really not the place to exhibit anything except that which is a work of art? Will you let me press you on that idea?—I think one should certainly keep that side of it more in view.

3850. You would say that the Government, then, should not be particularly concerned to push a matter that simply dealt with ordinary trade?—That is rather a wide view to take of it. I do not think my opinion will be very valuable on that.

3851. You think I am pushing you too far there?—I think that is rather too wide an application.

3852. Can you explain how you arrived at your idea that awards were given not according to merit, but—I forget exactly how you described it—according to the expenditure of the firm?—I did say that, certainly.

3853. Could you give your reasons for thinking that?—I saw several exhibits, or one or two small exhibits, had no award which I thought had equal interest and an equal amount to recommend them generally as those which had had awards given to them.

3854. Did those small exhibits belong to men with big names?—No, I should say they were for the most part people who were not so well known.

3855. Might it have been the name and not the expenditure that determined the award?—Possibly reputation would affect the committee; I have no doubt that would be so.

3856. (*Mr. Algernon Law.*) Can you tell me why your firm did not take part in the St. Louis Exhibition, although you took part at Paris, there being a Government grant and Government participation in each case?—I think we thought that there was not the slightest chance, or very little chance, of our getting trade with America, and there would not be any advantage from that point of view.

3857. You say that the staff at Paris for the answering of inquiries was limited, but they were very willing?—Yes.

3858. You did not hear of any complaints against the staff?—I heard of none at all.

3859. Was the attendance in the exhibition itself adequate, so that there could be some one to refer to in case of difficulty; was there one of the staff of the Commission about the exhibition the whole time?—No, the offices were outside the exhibition, as you no doubt are aware. I do not remember as to anybody being stationed in the exhibition. I certainly did not meet anybody.

3860. (*Mr. Wilson Fox.*) When you have shown at these exhibitions, have you shown mainly with the idea of getting an export connection abroad or of maintaining or increasing your reputation at home?—Our home trade.

3861. That is, of advertising your goods, so to speak, after you have succeeded in getting honours for your exhibit in a foreign country. The award is useful to you; is that your point?—No, I do not think the main object of exhibiting is to gain awards.

3862. You say that your object in showing, say, in Paris is to maintain or increase your reputation here?—Yes.

3863. How do people know in this country that you have done well or sent a good exhibit to Paris unless through the medium of an award?—There are a certain number of English people who visit Paris during an exhibition.

3864. A very small proportion of the general public?—I do not know about very small proportion.

3865. That is what I should like to get at; your chief object in sending to Paris would be that English people would see your exhibit there and come back here and purchase your goods?—Yes.

3866. And you think that it is worth your while to send for that reason?—We did think so; I cannot say that my experience leads me to say so now.

3867. That was the object with which you sent?—Yes, it was.

3868. Do you think that you are more likely to increase your connection here by people going over and seeing your exhibit than you are by gaining an award and advertising that fact publicly in this country?—I think so. I do not think I should be influenced by the fact that somebody had got a Grand Prix, or whatever it was, at a foreign international exhibition.

3869. You would think so?—Personally I should not be influenced by that; if I saw a good piece of work it could not be without its influence.

3870. Some firms do consider that these awards are of considerable value to them, do they not?—I have no doubt; I daresay so.

3871. One can only judge from what one sees; they advertise it so largely in their advertisements and upon their notepaper?—As I say, we used to do that; formerly we have made use of awards as a means of advertising in that way on notepaper, billheads, and so forth, but of late years we have dropped it.

3872. Assuming that exhibitions were well organised by Government, at what intervals would you care to send an exhibit abroad; how often would you care to take the trouble to get up an exhibit and send it to a foreign exhibition?—Once in ten years would be quite often enough for me.

3873. Often enough as regards the trouble you take and often enough as regards any benefit that might accrue to your business?—If there was any definite benefit, the oftener the better.

3874. That is your experience, that you would not care to send at intervals of less than ten years?—Yes.

3875. In looking round the British exhibit as a whole, as I have no doubt you did when you went with your own exhibit, could you express any opinion as to how the British commercial exhibits compared with the foreign commercial exhibits at the same exhibition?—What is a commercial exhibit?

3876. I mean machinery, textiles, clothing, furniture, anything which you consider a commercial commodity as distinguished from a purely art exhibit, like pictures, statuary or medals, or a War Office exhibit, or anything of that sort. What do you say as to that?—I do not think I formed any opinion upon that at all.

3877. You did not form any opinion whether the British exhibits as a whole were good, bad or indifferent as compared with the foreign?—I think it would be very difficult to get together in walking round an exhibition once or twice sufficient data to express an opinion upon that.

3878. Except that, broadly, you might have formed an opinion whether you were proud or ashamed of Great Britain?—I was not impressed certainly either one way or the other.

3879. (*Mr. Waring.*) What is your impression with regard to the last question asked you; suppose it was put this way: take our own Court, the Decorative and Furniture Court, and compare it with any other national court in the world, if you were asked as to the details of the work, the variety, comprehensiveness, character and quality of the work in detail, what would your reply have been from the English standpoint as compared with any other country in variety of design, in comprehensiveness of design, and in character and quality of the work?—Of course, one understands one's own work so much better than the work of other people.

3880. Your own work?—I mean speaking from a national point of view; I simply could not, for example, understand those pieces of furniture which were bought for South Kensington, because it is very difficult to understand and appreciate what the man was thinking about when those pieces of what were called L'Art Nouveau were being designed.

3881. I am afraid my question is not quite direct enough. The point one would like to get at is this: you might not be expected to know about any other Court than the Decorative and Furniture, but take the Decorative and Furniture, and throw your mind back on the comprehensive nature of the exhibits in detail and compare those with any other country in the world, what would your impression have been, that England was better in point of detail, in comprehensiveness of design and character, and quality of work than any other nation that you can remember?—What I was saying was rather a preface to my opinion. I was going on to say that in my opinion the English furniture was head and shoulders above anything else that I saw there, but one is so apt to be prejudiced in one's own favour. We understand our particular style that we are working in, and it is very difficult to try to put oneself in the place of the

Austrian who designs the sort of furniture that Austria is turning out at the present moment.

3882. Detaching any national preference one might have in mind upon the point of comprehensiveness of design, I do not think there is any question that the English court was supreme from that standpoint?—I think so too.

3883. The reason I put that so directly is this, to ask you whether under those circumstances the degenerative or uninteresting character of the English Court was not more owing to this lack of uniformity in the Court itself?—Yes.

3884. My mind is a little obscure on this point; you have evidently in your mind, in speaking of an exhibition, very largely the point of a high degree of excellence of design and a high degree of excellence of manufacture; that is the impression I have formed in hearing you; but we are living in a very democratic age to-day, and very few people can afford to pay for that very high degree of excellence, and the question is what practical value does it bear relative to the oak bedroom suite of which you are speaking (which I very much admired and which appeals to the masses), and the effect of educating outside countries in British art that they can understand and purchase; I ask you whether you do not think that there is some value in a view of that kind. There are rather two points; but the point I venture to put before you and would like to have your opinion upon, is whether a great deal of consideration must not be taken, in a democratic age like this, for the broad purchasing public which reflects itself to the national advantage by creating a taste for this kind of work in other countries besides England?—Certainly.

3885. (*Chairman.*) Do you agree with Mr. Waring?—Certainly; I think that would be more or less met by the suggestion of having a select national exhibit and a more general exhibit.

3886. I want to ask you a question rather in connection with the awards; you say they are worth less than formerly. Do you think that is because people rely more on their own judgment than they did 30 years ago; are they less uneducated in what is beautiful and what is ugly?—I do not know when international exhibitions were first inaugurated.

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3887. Take 1851?—I imagine at that time the thing was very much fresher, and these awards were looked upon rather as distinctions, and they had the merit of novelty if nothing else. One has got rather used to people with strings of gold medals on the top of their notepaper now, perhaps.

3888. Do your customers trust their own taste more than you have reason to believe that they did 40 years ago? Do you think that all this education has been of any use?—I do, certainly.

3889. In giving people the taste for what is good as opposed to what is bad?—I think certainly that the taste of the public generally has increased enormously, certainly within my time, the last 15 years.

3890. Would that decrease the value of medals; would people go on their own judgment, and not so much by the things which have got a medal?—I cannot give any opinion that would be worth having upon that.

3891. In your collective exhibit you would keep the names of all the different people who had made the things, would you not; you would have the names attached to identify them?—I think so.

3892. Did you think the British Pavilion at Paris was worth the large sum that was spent upon it?—I do not know what was spent upon it.

3893. Say £30,000?—I certainly thought it was very well done. I am always a great admirer of Mr. Lutyen's work, and I certainly thought it was admirably done. Whether from a commercial point of view it was worth the money spent upon it I have no means of judging. I think it was a great feature of the Exhibition, and everybody has spoken well of it.

3894. It was good for the reputation of the nation?—Yes.

3895. (*Mr. Algernon Law.*) It was a representation of Kingston House at Bradford-on-Avon?—Yes.

3896. (*Mr. Malcolm Ramsay.*) In deciding whether you would go to Paris in 1900 were you much influenced by the consideration that the Government would be officially represented?—Not at all.

3897. You would have gone in any case?—Yes.

Mr. Walter Birch, called and examined.

3898. (*Chairman.*) I think you have been in business some time?—Yes, 32 years.

3899. You have exhibited at great international exhibitions abroad?—Only at St. Louis.

3900. What did you exhibit there?—Upholstery and cabinet work, chairs and cabinets.

3901. Was your exhibit of the value of £4,000?—That was the value of our exhibit.

3902. Have you had any increase of business with foreign countries that you can attribute directly to the exhibition of your goods there?—We have increased our business with America and Canada about threefold since we went out there.

3903. Since the Exhibition?—Yes.

3904. On the contrary, have you suffered any disadvantages from your goods being copied or in any other way?—I cannot exactly say about that; all our goods have been copied, but I do not think to our disadvantage particularly. What I say is that at present I do not think the Americans are sufficiently well educated in the high-class workmanship to do us any material harm; their copies are somewhat crude at present.

3905. You send goods there to a large extent in spite of the tariff?—Yes, we are sending now between £15,000 and £20,000 worth a year.

3906. As regards awards, you secured the *grand prix* and a gold medal?—Yes.

3907. That you advertise, and it does you good?—Yes, we presume so. Our trade has increased since the Exhibition, but we cannot allocate it.

3908. But you think that had an effect?—In answer to that, we have had people, traders in America and Canada, who saw our show at St. Louis, come on purpose to see our show in London.

3909. Have you ever been induced to buy things from British or foreign manufacturers from having seen their goods at exhibitions, that would help you to any great extent, as the result of having exhibited there; it would probably be in the way of machinery?—We have improved our machinery considerably.

Mr. W. Birch.

3910. Was that from what you saw at St. Louis?—Partly at St. Louis and partly at other exhibitions where I have not shown.

3911. You have been to other exhibitions?—I have been to most of the exhibitions since the big exhibition in Paris.

3912. Why have you not exhibited at other exhibitions before?—We did not think it was worth our while. We started making some exhibits for the Paris Exhibition, but they were bought up by a firm that we thought would do better with them than we should do ourselves. That was the only reason we did not show there. I do not think we have contemplated any other exhibition.

3913. You did not show at Milan last year?—No; they are too close to England—we did not think it worth while.

3914. Too close to England?—We have our own representatives going through that district.

3915. You can advertise your goods in that way?—We keep a Continental traveller.

3916. Who goes with sketches, designs, and so forth?—Yes.

3917. Not the goods themselves?—Not models, only sketches and designs. We find that most of the big retailers on the Continent visit England, or London especially, once or twice every year, and they visit our showrooms then, or some of them.

3918. Are you in favour of this country exhibiting largely at international exhibitions, or do you think they might as well hold aloof?—I think it is quite time that England had an exhibition. I think we are a long way behind the times in not showing foreigners what we can do.

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3919. You would like an exhibition here?—I certainly should.

3920. I was asking you whether you are in favour of a large exhibit of this country at a foreign exhibition?—Certainly not, I am not in favour of that at all. I believe in having an exhibition in our own country, an English International Exhibition, run under our own English auspices, and my reason for saying that is, I do not think the English exhibitor ever has fair play at these exhibitions when run under a foreign syndicate.

3921. Is that in the matter of awards, or in the allotment of space?—In the matter of awards, in the matter of space, and also the extraordinary amount of expense he is put to proportionate to the expense of those in the country where the exhibition is held.

3922. Do you mean he is charged more for space?—I think so.

3923. Was that so at St. Louis?—As far as space there was concerned we paid nothing for space; that was under the British Commission.

3924. What did you pay that the United States man paid less for, do you think?—We were held up in everything we had to pay for; it was the way we were treated there; it was something that an ordinary English trader could not realise. Everything was boycotted to a certain extent by the unions.

3925. That was in getting your things there and getting them staged?—No, we got our things there fairly well, but from the time that our cases were landed in the Exhibition grounds it was one continual large expense, big expense, unconsidered expense. I will give you one instance: After we had erected our booth we wanted it painted, and we had to have the union men, and the lowest rate of wage that the union had for painting was 4s. an hour to start with; and although we had the materials of our own there, and I could have done it myself as far as the painting was concerned, having nothing else to do, if I had wanted to do it, they would not allow us to touch a thing; and they held the threat of the union over our heads that unless it was done by union men they would take the whole of the workmen out of that particular building, which was the Varied Industries Building.

3926. They would withdraw all their workmen?—That is, the union people.

3927. Did you appeal to the British Commission?—I appealed as much as I possibly could. That is where I feel a little bit sore over that; although Colonel Watson might have been one of the nicest gentlemen that ever breathed, I do not think they took sufficient energetic interest in us exhibitors.

3928. Did you hear other complaints besides yours?—It was all complaints in the British section; I heard nothing else.

3929. And all very much on the same lines?—All on the same lines.

3930. Do you think other countries were better treated?—I think that the Americans were better treated. Putting it in my own way, the only men who were well treated, that is, as far as I can gather, were the Frenchmen (I will say the Frenchmen, because in one part of our building they were able to beat the unions) and the Japanese, and the reason the Japanese beat them was, I believe, that they took to a tin tack everything they required, and they built their own place inside without extraneous help with their own men that they took over there, and as to the Frenchmen, there was someone showing something in the engineering industry, and although they stopped their men for a time putting them up, the only reason that the union did not beat this particular French firm was because they could not understand millimetres and centimetres and the plans they had to work to, and they could not find a foreman who could.

3931. That would not interfere with the painting much, would it?—As far as the painting was concerned, they could tell me how to do that as well as I could tell them. They stopped me doing it myself, and compelled me to have the union men.

3932. What would have happened if you had done it yourself?—They might have caused a fuss and taken the men out as they threatened to. I did not think the game was worth the candle, so I simply did as they wanted, because I wanted to get my stand ready for opening.

3933. Had you a large expense connected with your exhibit there?—It put it down myself roughly that it cost me from £300 to £500 more than it might have done under decent circumstances; that is, only just the erection of my stand.

3934. Have you got the figure that your whole exhibit cost you from first to last?—Yes, the whole exhibition that we sent out at our own expense was £2,400. That was the cost of taking the stuff over and the expense of running it.

3935. What was the size of your stand?—I really cannot tell you from memory; it was a very large stand.

3936. Was it as big as this room?—Six times bigger. I had four fitted rooms the size of from here to the fireplace. I had a very large stand. I believe I had something like 120 feet frontage.

3937. The value that you have just mentioned did not include that of the goods you were exhibiting?—That is outside the goods, that is actual expenses; £4,000 was the value of the exhibit, and £2,500 was the expense in showing the exhibit and running it during the Exhibition.

3938. You consider that £500 could have been saved?—Could I have known as much at the first as I did when I had been there a month or six weeks I might have saved £200 of that expense myself. I am only giving you the St. Louis Exhibition, and how it was run. After I had been there a certain time I got to know that the ground upon which our stand was placed belonged to King Edward, that it was part of the United Kingdom for the time being; and the busybodies who came to put me to such trouble and expense had no right to come to me at all. I blamed the Commission a good deal for not enlightening me at the time about that.

3939. There was ground space of the Commission allotted to you?—Yes.

3940. They did not tell you to whom the space belonged?—No; I knew it was the British section, but I did not know the power that the British officials had over that section.

3941. Had they greater power over that than any other ground that was allotted to British exhibitors?—As soon as I found out it was a part of British territory for the time being, I took the law into my own hands as an Englishman, and when they wanted to put me right I told them to send for Colonel Watson, not taking notice of Mr. Yankee; that is how that came about.

3942. It was not in the position of an Ambassador's house in foreign territory?—We took it as part and parcel of our own, and after we had made our own position of it, and handled the matter in our own way, instead of going to the Commissioner, we got on very comfortably, and were not interfered with.

3943. Practically, you might have been worse treated, in fact?—I do not think I could have been worse treated.

3944. You very wisely took the matter into your own hands after a bit?—Yes. I will tell you one instance where the peculiarity of my position arose. In the first place, you must be somewhat practical to follow me. I had got 68 very large cases, and they allotted me a space; before I could unpack I had to erect my booth. There was a lot of trouble with the Customs, but we got over that. Before I could put my goods down I had to carpet my booth and put my fittings in. One of the unnecessary troubles they put me to was to find a place to put these cases. I could not unpack the cases and put them on the floor which I was going to cover with carpet, and I must put the goods somewhere. They put me to a lot of unnecessary trouble in removing those cases from place to place before I could unpack or put them anywhere, and as they were charging 4s. an hour for that, every time a case which weighed 15 cwt. or a ton was moved it was very expensive.

3945. Was 4s. the rate that you paid the skilled workmen?—I never saw a skilled workman there. That was for ordinary labour.

3946. Not for an ordinary labourer, surely?—Ordinary labour. I never saw there, even when they were repairing the few things we had broken, a labourer that I should care to employ in my factory.

3947. This was regulated by a union?—If he could

hold a saw and drive a nail he was a skilled mechanic there.

3948. Are there any other criticisms you have on the St. Louis Exhibition and your experiences there?—My great complaint of the St. Louis Exhibtiion was this, that our own Commission did not take sufficient interest in our exhibitors and help them out of the trouble they got into; my people got into some I have not spoken about.

3949. We have been told they were very willing indeed, but that there was not enough staff; is that your experience?—As far as the staff was concerned, I never met a better lot of gentlemen to do what they could, but you could not find the staff. I could always approach the American Commission or the people who were supposed to be there, such as the inside superintendent of the building, if I wanted to know anything; I could approach them much easier than I could get at our own people. Whether it was because they were overworked or not sufficient, I cannot say.

3950. They were at times absent?—No, I do not think that at all—not absent from the ground.

3951. They did not hide themselves, I suppose?—No, I do not think they did. It was a difficulty to find them, but I do not think they were in hiding.

3952. I suppose it comes to this: that there were not enough of them?—I do not think there was enough energetic supervision over them. That is my opinion, and I had the courage to say so at the time there. They let things slide for a week which might have been done the same day that you made inquiries about them.

3953. In thinking over your experiences there, have you ever thought of a better plan of working exhibitions than a Royal Commission?—I am not aware exactly of the plan that was carried out there, not the *modus operandi*. I think they ought to have some one allocated to a firm like ourselves, who have to go to the trouble and expense of erecting a booth; there ought to be someone that I could put my finger on that would assist me.

3954. One man you were sure of finding?—Yes, I believe Mr. Lloyd was the man I had to approach most, but Mr. Lloyd seemed to be wanted all over the place. There was about 1,200 acres of land, I think, and he seemed to be all over the place at once, or wanted to be, but we could never get him.

3955. Are not we coming back to this question that there was not enough staff?—That I cannot say. That was not my opinion. My honest opinion is that there was not sufficient energy put in for we people who were exhibiting; there was no one to answer my questions and help me out of the dilemmas I got into, as they could if they had taken the trouble to do so. If they say they were otherwise engaged, I cannot answer that question. I cannot say they were or were not. I know it took me a week to get an answer to a query which, as a business man, I think I ought to have had an answer to the same day. That is my answer to that.

3956. What I want to get for the future is rather your suggestions as to any different organisation, whether you are inclined to think you should have more business men in the management of these things?—My opinion would be, as far as refers to my own special exhibit or manufactures in the same line, that we should have a man allotted to us who should understand our requirements, that he should always be there until the shows were erected, at our disposal to help us.

3957. That is over a certain space of ground. I suppose you would not have a special staff, and tell off one for each exhibitor?—I will put it in this way, presuming there were twenty of us exhibiting at an exhibition, and we were in the furniture trade—I will keep to that, because I do not presume to know anything more—there will be sufficient work for one man to see our stands properly erected, because they put certain embargoes on our actions. We had to work so that it suited them; there ought to be a man told off, so that if you wanted to know anything about the erection of the stand, what is right and what is wrong, he would be the man you are to go to, and he would be the man to tell you, Yes or No; that is the man we never saw at St. Louis.

3958. St. Louis is the only exhibition you have experience of?—The only foreign exhibition. I have shown at exhibitions at home, trade exhibitions.

3959. There is also some evidence you would like to give as to your views about the selection of manufacturers for the different exhibits?—Yes. My idea is that if you are going to have exhibitors worthy of a national show, there should be a certain amount of discretion in the selection of their manufactures, and that they should be put in a certain space contiguous to each other, so that you can see the merits and demerits. I think it is easy enough to get that. There are experts in our trade that would tell you that—manufacturing cabinet makers and employers. I could mention twenty very nearly offhand that would be willing to exhibit.

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3960. That would have to be done by the Commission or the superintending body?—By the superintending body.

3961. I think you say you would classify in the different sections?—Yes.

3962. As regards spending public money, you thought that the staff were not anyhow helpful to you, but you do not seem quite sure whether there was enough money spent on them or whether they ought to have been multiplied or not?—If the staff were overworked, they wanted more money spent on them than was spent at St. Louis; if that is the excuse that they could not give the attention required to the exhibition they wanted more staff.

3963. But money was returned from St. Louis?—I am rather surprised at that.

3964. What would you spend public money on if a grant were made?—If a grant were made, I think there are certain manufacturers whose exhibits are worthy of being shown that ought to be helped.

3965. You would help in the transport expenses?—Yes, give them an inducement to show.

3966. Would you have an examination here, or would you only go by the reputation of the firm? Would you invite such and such firms to exhibit?—Yes, if I were asked for my opinion on the matter, I should say that certain firms might be asked to show, some of the leading firms in the manufacturing industries, and there are some firms that are quite in a position to pay their own expenses; but there are other firms who really ought to show for the purpose of the exhibition which might be helped.

3967. How would you help some and not help others? Would you leave it to the man whether he would like to be helped and have a share of the public money?—I think if a proper committee was appointed to select those firms they would be able to arrange that.

3968. You think it would know which to help?—I think it would know who would require help, especially if you had the exhibitor before that committee.

3969. Have you any suggestion to make with regard to the arrangement of exhibits?—The manufacturers of furniture and cabinet makers that were showing in the St. Louis Exhibition were a long way apart. I believe the Varied Industries' building was 17 acres, as far as my memory serves me; the American exhibit was about 200 yards away from the English exhibit of the same class of goods, and the French exhibit was still further away. My idea of the arrangement of an exhibit would be that, if it was possible, the typical manufacturers should be arranged in a certain space where you could take them in, say an acre of that particular hall that you require for those exhibits, and they should be put as near together as possible.

3970. You take the view that you would like to see the exhibits of the same class of different countries near together?—Yes.

3971. You would not have the whole of the exhibits of a nation apart?—No, I would not.

3972. You believe in the ease of comparison?—Yes.

3973. Several witnesses have taken rather the other view?—You are asking me for my opinion; and, from a judging point of view, I do not think the judge has as good a chance to judge the different exhibits if he has to walk a quarter of a mile from one to the other; if he has them in easy range, and can carry them in his mind's eye, and go from one to the other, then it is much easier to give a more impartial judgment.

3974. Have you any views on the selection of judges?—Yes, I have big views. If we have an international exhibition in England, I am not comparing that with America, because I do not think the same thing would exist here as exists there. So far as we manufacturers are concerned, I think the judges ought to be the most eminent men that we have that have handled our stuff.

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3975. The most eminent men you can get, but it is not everybody you can get?—Yes; for instance, take a firm like Maples; they are supposed to be the biggest firm in our trade; if you were going to judge manufactured articles that they buy, they certainly would have men who would be able to give judgment in a fair manner. Or take a firm like Warings; supposing you had a judge from Warings, presuming they are not showing, you are not necessarily obliged to have the head of one of these big firms; some of the men may have more practical knowledge than the employers.

3976. You want to have practical men qualified to judge in each section?—Yes, qualified men. I do not think a spectacle-maker, no matter what his reputation as a spectacle-maker, would be a fair judge of my furniture; whether I had an award or not, I should not think much of his judgment.

3977. Should you think at St. Louis there was much unfair judging?—From what we heard I do not think there was any merit in the judging at all, I am sorry to say.

3978. You do not object to their having given you the grand prix and the gold medal?—I do not think they had any alternative there; I think I was the only typical manufacturer present.

3979. There were only a certain limited number of grands prix?—I think very nearly everyone who exhibited had one. It does not place a lot of merit on it.

3980. (*Sir James Kitson.*) What is your manufacture?—Cabinets and upholstery ware.

3981. Chairs particularly?—Chairs, couches, and cabinets.

3982. When was your firm established?—About 1838, I think, say 70 years ago.

3983. Yours is an old firm?—A very old firm.

3984. As you have put it, I thought you were a new firm who found great advantage in going to exhibitions. You had great advantage from going to St. Louis?—Yes, that is the first big exhibition we went to.

3985. You had not been in the States before, had you?—We had not been long; about 10 years.

3986. You say you derived great advantage from going to other exhibitions and seeing the wood machinery?—Yes.

3987. And you have ordered wood machinery from exhibitions?—Yes.

3988. Clearly it would be a great advantage to those who exhibited the wood machinery that you and others should have the advantage of purchasing from them. Does not that apply to wood machinery more than to any other kind of machinery, because I think the developments in wood machinery have been very extensive of late years, have they not?—Yes, in the last 20 years.

3989. Therefore your point would apply to wood machinery where it would not apply to general machinery?—No, not to textile machinery.

3990. I am rather surprised to hear your complaints of the St. Louis Exhibition as to the cost of installation. I had some experience, and the business of my firm was done through an American agent, and it was done at a very moderate rate; the articles in iron and steel which were sent out were placed without any trouble, and there were no complaints of the Commissioners. Yours are very general complaints. We had not a complaint of the Commissioners, and the iron trade was properly represented there. You would be surprised to hear probably that every article exhibited was returned here duly and promptly, without a single article being missing?—No, I do not think I should. I have not a word to say about the transportation, nor the care they took of the goods after we had once got them erected.

3991. Would you be fair to admit that if you had had an American to look after the American work instead of an Englishman like yourself it might have been better done?—Possibly, but I think I know firms who had Americans looking after their work.

3992. You knew other firms who were in the same position as yourself?—Yes; I can go back to the Americans themselves; the Grand Rapid people themselves had the same complaint to make that I had. There was a syndicate formed to show for the Grand Rapid there. I cannot give you the actual facts, because I could not prove them, but I went to the Grand Rapid during the time the Exhibition was on; there was a syndicate, I think, of ten or twelve of the largest Grand Rapids in their booth, which was a booth they had put up 20,000 dollars or 25,000 dollars to build, but they had not got to the roof when all their money was spent.

3993. I suppose there were varied experiences?—I can only give you my actual experience; I cannot give you others.

3994. (*Mr. Waring.*) The Chairman was asking you a question with regard to your views of foreign exhibitions, and you said that you thought we ought to have an exhibition in England. I could not quite catch whether you are in favour of foreign international exhibitions, and whether, if there was another in three years, and you thought it of sufficient importance, you would go and exhibit there?—Certainly.

3995. You are in favour of foreign exhibitions?—Yes, I am.

3996. Apart from having one here?—Yes.

3997. You evidently feel very sore over the difficulties you had in getting information from the officials in control of the Exhibition. You cannot quite say whether in your judgment there were sufficient or not sufficient, but you seem to be quite clear that the organisation to answer your queries and inquiries was not good; in fact, it was very bad?—That is so.

3998. There was no organisation?—Apparently not.

3999. You were quite lost, and could not get information on any point, and you got so tired in looking for it that you went and dragged it out for yourself; that is the point?—That is the exact position.

4000. It also struck me from what you said that a particular point you complain of was the lack of commercial organisation?—That is so.

4001. I do not want to say this invidiously at all, but was it in your mind that there was the official control but not the commercial control?—There was more red tape than work; that is what I put it down to.

4002. If you had had good organised control and sources of getting information, you could have saved a considerable amount of money by the knowledge you could have got from that?—I could.

4003. Which you lost through having to drag it out yourself?—Yes.

4004. Would it have any influence on you in exhibiting in the future whether or not you were helped by the Government directly in the cost, say, in regard to shipping and freight?—Yes, that would have an influence. I do not think I should risk the same expense again from the firm's standpoint.

4005. That is another point. In future, if you were called upon, in spite of the advantages you got from St. Louis, you would not feel justified in spending such a large amount of money without assistance from the country?—Certainly.

4006. Therefore the presumption is that you would not go again?—Yes.

4007. In spite of the advantages you got, you say you would not face the position again without assistance?—I should not pay the same expenses again.

4008. A number of the witnesses have classified the advantages under two heads, one national and the other individual, the classification of national being that the nation gets a good advertisement of its wares in the foreign countries, and the individual gets a good advertisement for himself. Is that your view?—I am rather inclined to think it is more individual than national.

4009. Take this standpoint: Take the particular trade that you are engaged in. You go to America with certain designs of chairs and cabinets, and you strike a better-educated line than they have got in America; you therefore improve the public taste in America, and you prove the desire to get these particular designs that you have brought over; that is the national standpoint. Other people would get the advantage; they would reap where you have sown, because it infuses in the minds of the Americans a desire to have that particular style of furniture. So it has some national influence, I think you will say?—You ask me my individual opinion. I take your question to be whether it would have a bigger national or individual bearing.

4010. No; whether it would have both?—I think it would come to very much the same. I do not see how an individual can benefit without also benefiting the nation; you cannot part them.

4011. Have you any feeling with regard to Government helping in these matters in future?—My feeling is strongly that they ought to help from a national point, and not from an individual point, there, although the individual would have the help.

4012. With regard to the point the Chairman was questioning you upon with regard to the enhanced cost of labour, namely, 4s., that was not the usual charge. They simply rushed the people; on account of the exhibition they put up their charges?—The phrase was, they held us up; they had the power to hold us up.

4013. And you had to pay; there was nothing left for it?—Yes, we had to pay.

4014. (*Mr. Malcolm Ramsay.*) May I press you as to the extent to which you think Government might help the exhibitors financially. Do you think it is justifiable to ask the Government to help exhibitors in cases where they stand to increase their business and get considerable commercial advantage out of the exhibition?—I should have to answer that question under two heads. In the first place, I think that there are manufacturers that would be known in every trade that would require help before they could exhibit at all.

4015. The smaller people?—Yes.

4016. The people who are just growing?—Yes. They may have lots of merit, but not much capital. On the other hand, I think it should be proportionate help.

4017. Proportionate to the size?—Proportionate to the expense they are going to.

4018. It struck me that there is this difficulty: If you wish to subsidise the exhibitors, and relieve them of expense, either you will have to give a very large sum altogether, or else the help that you give will be too small to make any real difference to the exhibitor. Let me take, if I may, the figures you just quoted as regards your own experience at St. Louis. You said that you had spent something like £2,500, roughly?—Yes.

4019. If the Government was to give you material assistance, I suppose it would have to relieve you of, perhaps, £300 or £400 of expenditure?—My idea as to that would be help in getting your goods there and in the erection of your booths. Beyond that I think every exhibitor would stand on his own base.

4020. I thought you contemplated rather more. If it was a case of helping the exhibitor to the extent of £100, £200, or £300, then the total sum required might run into a couple of hundred thousand pounds?—The accountants brought it out that it cost us £2,500. I would presume, if ever we went to these exhibitions again, that I would bring that £2,500 down to, perhaps £1,800, or possibly £1,500; it would have been possible for me, had I had the experience, to have saved anywhere from £400 or £500 to £800 or £900.

4021. That would have been done entirely by an improved organisation?—No. It would have been done to some extent in that way, but it would have been done in this—that I would not depend on any foreigner again to render me any assistance at all. I would take my own men; I would make my booth, and erect it here, so that I knew it would go together; I would do all the work that was required at home, and only leave the fixing to be done there, and I would take my own men to do that.

4022. And doing that, you think the next time you could do it a good deal cheaper?—I am sure I could.

4023. What would really be just as useful to the exhibitor as a direct payment would be to have available tabulated experience that he could draw upon?—That would do a great deal.

4024. That would be just as useful, inasmuch as it means in saving money?—Yes.

4025. If that were done, you would not think it of importance to get a grant in aid, say, of transport?—It would be an equivalent to that.

4026. St. Louis is perhaps rather an exception in this way—that the distance is greater and the expense is much higher than it would be in the case of an exhibition, say, at Paris. Is not that so?—Much more.

4027. I should like to go back to a statement which I think you made, that you did not exhibit at Milan because you had a traveller going round Italy?—Quite right.

4028. Do I rightly infer from that that you think, as a rule, it is better to push your own business by travellers than by going to exhibitions which are fairly near?—In answer to that, if you will allow me to put it in this way, I do not think an exhibition would do us any good there, because we have already worked that district consistently for the last 10 years, and the people selling the class of goods we manufacture invariably come and see us once or twice a year in our own show-rooms in London.

4029. Would that same argument apply to France?—A great deal to France and to Germany and Austria.

4030. And, as far as your own experience goes, you care more for exhibitions in countries where you have no travellers?—Yes.

4031. Of the two, do you prefer to push your business by travellers or by going to exhibitions?—By travellers.

4032. You think you get more direct results?—Yes. One great reason why we showed at the St. Louis Exhibition was because we knew there was a market for our goods, but the ordinary American was bigoted about buying them; so we took them out to show the American public in order to induce the American retailers to buy the goods off us.

4033. Of course, you do not look upon the money you spent at St. Louis as wasted in any way?—We do not think it is wasted at all.

4034. You have spread the charge on it, apparently?—Yes; we have spread it over a term of years, and I think it has repaid us.

4035. In considering whether you would go to St. Louis, were you influenced by the consideration that the Government was going to participate officially?—It was through that consideration that I went.

4036. You think you would not have gone otherwise?—I should not have gone on my own account without the protection of the English Government.

4037. You value the official participation mainly because it means, or ought to mean, standing up for British exhibitors, and doing the arguing and official negotiations with the foreign Government?—It really meant seeing us righted and protecting us.

4038. You had someone to stand up for your rights?—Yes.

4039. (*Mr. Harris.*) Following up a point that Mr. Ramsay has taken, do you suggest that a good general organisation of the Commission at St. Louis would really have saved most of the trouble that you had with the labour, and so forth?—Yes, I do.

4040. Would you go on to suggest that there should be a permanent organisation to look after those things, so that when an exhibition is inaugurated in a foreign country that organisation should have everything ready for its intending exhibitors? Do you think that would help you?—You mean to say that a permanent body should exist to take advantage of any international exhibition that was going to be held, and do anything for the exhibitors that they are able to do with regard to their exhibits?

4041. Yes?—I think we should have expert advice then that we did not get over there in the States.

4042. That is what you are rather driving at?—That is what I am driving at.

4043. Have you exhibited in New Zealand?—No. We have representatives there, but I have never exhibited there.

4044. Have you refrained for the same reason as in the case of Milan—that you think you are covering the ground?—No; we do not think the country is ripe enough for our goods.

4045. (*Mr. Algernon Law.*) You said you did not exhibit at Paris because another firm had purchased your exhibit?—Yes.

4046. Did they exhibit your exhibit in Paris?—Yes, it was one of the retailers that we were interested in.

4047. Did they derive any advantage to their trade by having exhibited?—We have been doing fairly good business ever since through their house, and we have done a nice Parisian trade since.

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4048. You think it was due to that?—As far as our firm was concerned it was quite new.

4049. Do you find an exhibition the best form of introducing a trade into a foreign country. Do you think it is better than beginning by travellers?—I can only speak of the one, and we think it has answered admirably as far as America is concerned.

4050. You would exhibit again in the United States if there was Government assistance?—Not under the same conditions as before; I should want an easier way of exhibiting.

4051. What sort of Commission do you suggest should be formed; at present a Royal Commission consists of a number of eminent personages, many of them not in any way connected with trade; I think you said that the Commission should be formed in a different way from what it is now?—I think there ought to be a few practical men on that Commission taken from different classes of manufacturers.

4052. Would that same observation apply to the staff?—I think we ought to have a more practical staff. If there was a big range of exhibitors in any particular class, whether in machinery, wood, leather, or chinaware and glass, there ought to be one member of the staff that was sufficiently practical to know the requirements that that exhibit would demand, to know how to cater for them.

4053. In these cases in which you had ground to complain of the neglect of the British officials, did you appeal to Col. Watson?—I appealed to Col. Watson very often—I think until he was sick of seeing me.

4054. But your complaints were not attended with good results?—I do not think Col. Watson had the power. I do not think a nicer man lives than Col. Watson; I think he would have done everything he possibly could to help us; but apparently he had not the power.

4055. In any case of flagrant neglect he might have dismissed the official?—I could not bring that home to anyone; I could not bring home any case of flagrant neglect.

4056. You spoke of the selection of typical manufacturers for different exhibits. How do you propose they should be selected, by the Commission?—By the Commission, presuming it is intended to be an international affair.

4057. Do you suggest the exhibits should be put together as a collective exhibit?—Yes.

4058. With the names or without the names?—Either. I think they should be in the names; the manufacturer, I presume, would put his own name on his goods if he was going to exhibit at all, or else you would show them under the auspices of the British Museum or something like that, the British collection, but it would not do the manufacturers much good.

4059. You found a good deal of cause of complaint of the jury, and you say that the best men should be selected. Of course, there would be a difficulty in inducing the best men to go out to an exhibition. What do you think of the abolition of all awards and letting everyone stand on their merits without the judgment of other people?—I really had not thought of that. I should rather be inclined to go with the abolition of awards, but I had not thought of it in my own mind.

4060. (*Mr. Wilson Fox.*) The reason which prompted you to show in America was, I understand, a special one?—Yes, because we thought it would give us business; we thought we should get business from it; it was purely a business reason.

4061. You did succeed, I understand, as far as you can ascertain, in getting business not only there but in Canada?—Yes.

4062. Had you before that time sent any travellers to Canada?—Yes.

4063. Your name was known in Canada?—Yes, and America.

4064. Therefore, as far as that exhibition was concerned, it was a success?—Yes.

4065. It has also been successful as regards your home trade, has it, on account of the award you got?—I think we have derived some benefit from it, although we cannot put our finger on the spot where it comes in.

4066. You say: "We secured the Grand Prix and Gold Medal which we advertise, and think it does us good in our business"?—I think so.

4067. You mean by that your business in England?—Yes, our general business.

4068. As regards the cost, I think you told Mr. Ramsay that you did not grudge that if you spread it over a term of years?—The cost was £2,400, and instead of coming out of the first year's trade, we spread it over four years, charging £600 per year. I honestly think that the trade from the exhibition has repaid that.

4069. Generally speaking, I do not want to bind you to a year or two, how often would you be prepared to put down money to show at an international exhibition? What is the interval between each exhibition that you would wish to elapse?—I should think at least three years.

4070. Would you be prepared to show as often as that?—I should be—that is, if the fashions in furniture change as often as they have been changing lately.

4071. Therefore it is the changing of fashion which would be your guide?—Yes, to a great extent.

4072. When you get a new thing to show you think that an international exhibition is a good opportunity?—If I may answer that in my own way, I put it in this sense: The main part of our business, when we get away from the main business for the million, of modern furniture, etc., is the reproduction of Old Masters; for instance, in America, as far as the general public was concerned, that particular part of the business was quite new to the man in the street, as we will call him, I believe, and we particularly wish to show some of those old specimens.

4073. Do you find you get many orders at the exhibition or do they drop in afterwards?—Very few at the exhibition. We were very fortunate in that exhibition, and we were especially fortunate to sell the whole of our stand. John Wannamaker, of New York and Philadelphia, bought the whole of it at one deal.

4074. (*Chairman.*) Was that one private purchaser?—One big retailer.

4075. (*Mr. Harris.*) At a profit to you?—Yes, at our price.

4076. (*Mr. Wilson Fox.*) As you have, I understand, a pretty complete system of travellers going about, not only in this Continent, but in America and Canada, you were able to judge, through the information which you gained from them, where it would be likely to pay you to show, and where not?—I think so.

4077. That puts you in a better position than persons who have no travellers, and have to take their chance at an exhibition?—I think so.

4078. (*Mr. Malcolm Ramsay.*) You spent £2,500 at St. Louis, and you said to Mr. Wilson Fox that you would be prepared under certain circumstances to exhibit every three years?—Yes, at not less than three years.

4079. Then the cost of each exhibition would be £800 a year?—I should never presume on these figures again, if you were asking me I should take at least £200 off those.

4080. Over what term would you spread that St. Louis money?—We have spread it over four years.

4081. It would be £600 a year?—Yes.

4082. Does that £600 a year bear a large proportion to the amount you spend on your travellers per year?—No, not a large proportion.

4083. It is not very much in comparison?—No.

4084. (*Mr. Harris.*) You referred, in an answer to Mr. Wilson Fox, to changes of fashion in connection with an exhibition every three years. Do you think the manufacturers themselves are to any extent responsible for changes of fashions?—That is one of the things I have never been able to locate. I do not know where they come from. I have seen many in my 32 years' actual experience in the trade. I started when the old-fashioned dining and drawing room suites were just going out of fashion, when the Early English period came in; how it came in I could not tell you. Then there was the Black and Gold period; it came in and lasted for a certain time. We never did know where it came from. After the Black and Gold came the Chippendale and the Sheraton. Then there was the Nouveau Riche, or some other such style; where they come from we are never able to get at. At the present time there is an old Queen Anne rage. Three years ago you might go through the whole of the West-End of London and you could hardly see a piece of

Queen Anne furniture, but in about three months' time everywhere there was lots of it; whether they dug it up or made it, or how they got it, I could not find out.

4085. But do you know whether there is a danger of manufacturers starting new fashions in order to go and exhibit them?—I do not think they can. I do not think they ever emanate from a manufacturer.

4086. (*Mr. Wilson Fox.*) When you exhibit do you send the very best and most expensive class of goods to appeal to buyers who would pay a large sum, or do you send the goods which will appeal to the ordinary person with a moderate income?—We send goods which we think will have the best commercial advantage to ourselves, stuff that the million can buy, as far as we are concerned; but both at home and at this particular Exhibition abroad we have always made something of the very, very best type we possibly could to show the people who are looking round our show that if they want better goods we are in a position to make them.

Mr. W. Birch.

7 Mar. 1907.

THIRTEENTH DAY.

Thursday, 14th March 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G
Mr. Malcolm Ramsay, C.B.
Mr. U. F. Wintour (*Secretary*).

Mr. Frederick Thomas Ford, called and examined.

4089. (*Chairman.*) I understand you are managing director of T. B. Ford, Limited, of Loudwater, Buckinghamshire?—Yes.

4090. Your speciality is, I think, blotting-paper?—Yes. My people were the original inventors of blotting-paper, which was produced in the old days by hand. They exhibited in 1855 at Paris, and got a medal, the highest award then for hand-made blotting-paper. We have been to several exhibitions since—namely, New Zealand in 1882, Adelaide in 1887, Melbourne in 1888-89, Paris in 1900, Chicago in 1893, and Cape Town in 1904.

4091. You did not exhibit in St. Louis, did you?—No, we did not go to that exhibition, unfortunately. I am rather sorry we did not go, because I think there was more notice taken of the St. Louis Exhibition by the British Government than of any of the other exhibitions. I went personally to the Paris Exhibition, but it is a very difficult thing for a manufacturer to go to New Zealand, for instance, or to Adelaide or Melbourne.

4092. Of course Paris is handy?—Yes. Then I did not go to Chicago or to Cape Town.

4093. I think the goods that you have exhibited have been entirely blotting-papers, in various thicknesses and colours?—Yes, and the raw materials from which blotting-paper is manufactured.

4094. Showing the various processes used by you in the manufacture?—Yes.

4095. Did you actually manufacture blotting-paper in any of the exhibitions?—No. The exhibit really consisted of bottles, which looked very much like bottles of chemicals. I am sorry I have not a photograph of it here to show you, but it was in a large case about as large as the tables in the middle of this room, but a little higher than the room. It was railed in. In the centre we had our hand-made samples, which were of some interest to the Americans, I think—so much so that they annexed them, and I have never yet had them back. They were supposed to go on to San Francisco for exhibition there. We had nobody to look after our interests at all beyond the agent we appointed. Mr. Saunders was my agent at the time, and apparently he did not want to go on so far as San Francisco; and they told me, when I asked for my exhibits to be returned, that they were in a museum in Philadelphia. I suppose they are, but whether they are or whether they are not I have never been able to ascertain to this day.

4096. Have you had any increase of business with foreign countries which you can directly attribute to the exhibition of your goods at these exhibitions?—The great question with regard to that is the question of Tariff Reform. In each case where we try to do business we find that the enormous duties, especially in the United States of America, are prohibitive. Our goods have obtained the highest award because of their excellent quality over the blotting-paper of other nations; for instance, we are far beyond the French and we are far beyond the Americans in the manufacture of blotting-paper, and we have applications from private people asking where they can get it.

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4097. I think you got more business with South Africa as a consequence of the Cape Town Exhibition?—In South Africa we are opening up a business.

4098. They do not manufacture blotting-paper there, I suppose?—No, they do not. Not only that, but you see there is not the same trouble in getting paper in there. They are mostly Englishmen, and there are agencies from the wholesale stationers here who know us, and therefore we are able to do a little by advertising, to back up the advertisement which we gained by the Exhibition at Cape Town. That was, I think, more or less, a private affair—that is to say, it was not an international exhibition, but it was got up rather by a private syndicate.

4099. What we want to get from you is more the effect of exhibitions as far as your business is concerned?—As far as exhibitions are concerned, there is no doubt about it, they enlighten everybody in every trade in which they are particularly interested, by enabling them to see the best and the latest things, especially in machinery.

4100. I am coming afterwards to what is the value of the knowledge that you have picked up yourself; but I want to know now what has been the effect of exhibitions as far as your business is concerned?—Do you mean the advantage to our firm in particular from our own exhibiting?

4101. Yes. You have told us that you have got an advantage in business in South Africa, but you have not mentioned any other place where you have got any advantage from exhibiting?—I should like to take them *seriatim*. In South Africa we are doing a larger business since we exhibited. In Chicago and in America generally we can do nothing; we are absolutely precluded on account of the tariff. In Paris we have opened an agency; but the advertisement to us from having a case and exhibiting our blotting-paper there was absolutely useless. It took me a day to find the case.

4102. At the Paris Exhibition of 1900?—It took me that much to find my own exhibit in Paris then.

4103. Did you go to the offices of the British section?—I went to my agent, Mr. Day.

4104. He would know all about the offices, of course?

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—I took the catalogue first, and I said, "Now I will not go to the offices, but I will try to find this exhibit." Then I walked about to where I saw on the plans the paper-making part, the stationery, and so on. As you know, it was an enormous exhibition. I could find all the large countries like Russia, Germany, and Austria. Those all had large spaces of ground laid out and properly decorated, with the name of the country whose exhibits were there put up. In the case of Great Britain, we had no ground apportioned to us, we had no enclosure, we had no decorations, and, as a matter of fact, we had no subsidy, which the other countries had, I believe—in fact, no interest was taken in it.

4105. There was a lot of money spent there. Do you mean that you did not get a subsidy towards your space? Did you have to pay for your space?—As regards our space, we were dotted about in different places all over the Exhibition, and we had no special section marked "Great Britain."

4106. Who was next to you?—I think there was another English exhibitor in paper, and there were also a French manufacturer of blotting-paper and a Japanese manufacturer of blotting-paper there.

4107. Then you were amongst the papers?—Yes.

4108. But you would have liked to have been in a big national section?—I should have liked, when I walked into the Paris Exhibition, to have seen a huge board up with "Great Britain" on it, and I should have liked to have seen all the exhibits of British manufacturers placed in such a good position that they could not have been missed by the other nations of the world who came there to see that marvellous Exhibition.

4109. But surely anybody who took an interest in blotting-paper could see your blotting-paper, and could compare it with the other blotting-papers close by, to the advantage, I hope, of your blotting-paper?—Yes, I hope so; and, as we got a gold medal there, undoubtedly it would have been so. The point to me is this, that because of its obscure position it was lacking in the advertisement which I had hoped to get from it.

4110. Surely, for the comparison of your goods, it was an advantage to have similar goods near?—Certainly, and I do not object to that. That is another way of looking at it, of course; but, even then, it would be seen only by those people who wanted to get some notch from me as to how I made my particular goods, and it would not be an advertisement to me as a manufacturer of Great Britain. It would only be those people who were particularly interested in paper who would find it.

4111. But I suppose those would be likely customers for your blotting-paper?—No, I should think they would possibly be quite the opposite to customers.

4112. They would be your competitors?—They would be my competitors. That is a matter all exhibitors have to put up with. You always have the risk of informing your competitors of something or other which it is to their advantage possibly to copy; but that is not the object which a manufacturer has in going to an exhibition.

4113. Have you ever experienced any actual disadvantage from exhibiting at these exhibitions, in consequence of having your goods copied by foreign competitors, or in any other manner?—No, not that we are aware of. I am only speaking of what might take place with regard to it.

4114. You have not known it to take place in regard to your exhibits then?—No, we have not known it.

4115. Do you attach any considerable value as a means of developing your business to the awards which you have obtained at exhibitions; if so, for what reason? You have told us that you got a gold medal at Paris, and, I understand, you have opened a branch in Paris since?—We have opened a branch there.

4116. Do you think the gold medal helped in spreading the sale of your goods?—I think so. I think medals always, to a certain extent, show that the goods which have been exhibited are superior to other makes. When one takes a gold medal in competition with other nations it is a little more valuable perhaps than it would be if it was only given in one's own country.

4117. Very much so, I should think?—I look upon that as a certain help in selling the goods in that particular country, because the award is given by their own experts.

4118. Now, look at it from another point of view: Have you ever been induced to buy from British or foreign manufacturers to any considerable extent as a result of seeing their goods at any exhibition? If you have done so, that would be, of course, in connection with the materials and machinery which would assist you in your processes?—In regard to machinery, I recollect going to an agricultural show, which is tantamount to the same thing as an exhibition, and from what I saw there I bought a lift. Then I went to another exhibition, which was the Printing and Stationery Exhibition in the Agricultural Hall, and I remember seeing machinery which was particularly adapted to my manufacture. I had seen advertisements of it very often, but I had never seen the actual machinery until then. I bought that machinery owing to that exhibition. Those are only two cases in point, but I think when one can see the actual machinery—and sometimes at an exhibition you see it in motion—that gives you a better idea of what you are going to buy, and to what extent that machinery will be of advantage to you in your special business.

4119. Those were neither of them international exhibitions?—No, those were home exhibitions.

4120. And they were special exhibitions?—Yes; the one was an agricultural show and the other was a papermaker's show, or rather a special trade exhibition dealing with printing and stationery.

4121. But the principle is the same, of course?—Yes. We are naturally interested in machinery. I am always very glad when I find one of our engineers in this country is able to get foreign orders for his machinery, because so much of the machinery at the present day is made in America and in Germany, especially for papermaking. There is an enormous amount of it brought into this country which competes with our engineer here.

4122. Can you specify any definite point on which you have derived instruction or knowledge from visiting exhibitions—for instance, with regard to methods of manufacture, economy in manufacture, or opportunity to purchase improved machinery?—There is no doubt exhibitions do good. They bring people together, and an exhibition always opens the eyes of everyone who goes to it, and he sees something he has not seen before, and was not aware of possibly, or if he was aware of it it was by advertisement and he has not grasped the benefit that it would be to him in his own factory.

4123. Our next question is: If you have refrained from exhibiting your goods at great international exhibitions in the past or have discontinued exhibiting, what, briefly, were the reasons by which you were actuated? In regard to America you have told us about the cost, the distance and the prohibitive tariffs?—Yes. In the case of America we should only go there now to get an award and to show that we could beat everybody else in the world, because the Americans are making large quantities of paper and exporting it into this country from their country.

4124. Do their blotting-papers compete with you in this country much?—They send it over here.

4125. Do they?—Yes; but they do not hurt us at all, because we have got a speciality with regard to blotting-paper. They do not touch us in quality. They make a very big rough paper, which is used largely for advertising purposes, for insurance offices, and that sort of thing chiefly. We make a thick paper, but they are able to compete with us to a great extent in price, because they have no duty to pay in this country, and they get their raw material very cheaply, and their machinery is such that they can turn out an enormous quantity at a very low cost.

4126. Do you mean that they sell their goods here at a lower price than they do in America?—I should not be prepared to say that, although I believe it is a case of dumping.

4127. But you do not know?—I cannot give you chapter and verse for that, and I should not like to say anything I cannot substantiate.

4128. Therefore I will not press you on this point?—I believe that is the case, because when their mills are in full work over there, and they become a little short of orders for a time, they would rather keep their mills full running and send the stuff over here than they would reduce their quantity. Reduction of quantity means discharging hands, and if a man has got skilled hands and work is going short, he knows the output

of his mills will have to be reduced unless he sends his paper away, and he would rather send his paper away at cost price than reduce his output. That is practically what it comes to.

4129. Taking it rather for granted that you are not inclined to exhibit from a business point of view at such exhibitions as those in America, would you, with the object of ensuring that British manufactures were creditably represented amongst the exhibits of other countries, be willing to exhibit at great international exhibitions in future, provided that some permanent organisation were available which would minimise the trouble and cost to individual exhibitors—the object being rather the reputation of the country?—Yes, certainly. I think that every British manufacturer who has any speciality and anything that he knows would go well in a foreign country, would be glad to avail himself of an exhibition, and doubly so if his Government was willing to give some subsidy. I should like to say in regard to that, that we as a manufacturing nation are not represented so well, according to my experience, in large international exhibitions as other countries are. We are left more or less to our own resources and our agents.

4130. That is, you think, the organisation of these large international exhibitions is not so good as that of other countries?—No, it certainly is not.

4131. In what respect?—My particular experience with regard to the last Paris Exhibition was that our British goods were dumped about in various places some of them difficult to find—especially in my own case; and that the other nations had a subsidy from their Governments by which they were able to have a very fine show, a large space, and to identify themselves and their exhibits with their own country.

4132. But surely the arrangement of the British exhibits was not different from the arrangement of the exhibits of other countries, was it?—You see, if you go to an exhibition with a subsidy you have got money, and you can say, "We will have this space," which is a fine space, probably at the entrance of the exhibition, or "We will take that building; we will take the whole thing." The Government takes the building, and they label it with the national name, whatever it may be, and the exhibitors come in and take the space.

4133. Just tell me the process that you went through at Paris. How did you come to exhibit there at all? You were invited by circular from the British Commission, I suppose?—I think that was so originally, and that was followed up by a letter from an agent named Day. Now we have come to a point I should like to recommend this Committee to take note of, and that is to have as witnesses agents who have represented British manufacturers, because they would be far more important as witnesses than the manufacturers themselves. We have to be at home to look after our works, but these gentlemen go over there as our representatives, and they know all the difficulties that have to be contended with.

4134. We have had one or two of those gentlemen before us, but I am glad you have mentioned the point, and you are quite right to do so?—It is a most important point.

4135. What I want to get from you is what happened after you decided to exhibit in Paris. You got a letter from an agent, I understand?—We got a letter from Mr. Day, whom we know, and we appointed him our agent there.

4136. Then you entrusted him with the goods, did you?—We sent our goods over to the Paris Exhibition, and he had to see where they were to be placed. When I went to him, I said, "I did not come to you on purpose, but I thought I should like to see what sort of advertisement it would be to us, and I tell you it has taken me all day yesterday, and I did not find it. I could not find our case, so I have come to you now to ask you where it is." He told me where it was; it was not very far away from him. He had got several other agencies; I think they were chiefly for machinery, from what I remember at the time. He said, "You will find yours in the paper department." I said, "It appears to me that the other nations have their principal exhibits all in one building, and that Great Britain has hers divided up under the different manufactures. Then, of course, it was left for him to see the jurors, and to place before the jurors the particular qualities which we claimed for our paper, and we obtained a gold medal.

4137. That was all right, then?—Yes, that was satisfactory. That shows that as far as the award was concerned our goods did obtain the highest award; but as an advertisement to us it was very poor indeed, because the goods were seen by hardly anybody, and our exhibit was treated as an offshoot of the exhibition; in fact, it was placed in an out-corner of it, where no member of the public in the ordinary way of seeing the exhibition would go—it was shelved, in fact.

4138. Of course, you understand that your goods could not take up a great amount of space, and that it would be difficult to make a great show of the goods themselves as they would not catch the eye like an exhibit of machinery?—Quite so; but I think we ought to have had all the British goods in one building, with a label over it "Great Britain," like the other countries. Take Italy, for instance, in that building you found all kinds of things—machinery, guns, and everything else belonging to the country.

4139. You spoke just now of other countries' blotting-paper exhibits being placed next to yours?—Yes, that was so.

4140. In those instances they must have been arranged in the same way?—They were, undoubtedly. I was only saying with regard to international exhibitions, that, as far as the nation is concerned, we figure very poorly as compared with other nations. I think that was the point that I was speaking with regard to. As regards anything personal, and as regards my own particular manufacture, I have nothing to complain of, because I got all I went for—the highest award—which I expected I should get.

4141. But you would have liked to have had a more conspicuous place for your goods?—Exactly; I should have liked to have felt "I am a Britisher in a foreign country, and my country has as good an exhibit as other nations have."

4142. Did you ever go to the British pavilion, and did you ever talk to the British Commissioners or to their staff—Mr. Lloyd, or any gentleman of that kind at the Paris Exhibition?—No, I cannot say I did. I had no occasion to do that at all. My agent was representing me there, and I had no occasion really to approach any of the staff. I know the British Vice-Consul, Mr. Atlee, and I had the pleasure of some conversation with him sometime after the exhibition was over. I told him that I thought our Government was very lax with regard to exhibitions, and with regard to helping manufacturers in pushing their particular goods in foreign countries, as we had very little information supplied to us as to what was the particular kind of goods that we wanted in our particular line, whether, for instance, they wanted a particular size, or a particular weight or thickness or colour or anything of that kind; and that if a British manufacturer wanted to find it out the only way for him to do so was to employ his own agent.

4143. Are you alluding now to exhibitions or to the general trade?—I am referring to the general trade after the exhibition is over, and to our following it up. If we had had some good commercial committee to look after our interests there, or at any other exhibition, backed up by the British Consul or some other Government agent, I think that our interests would have been better looked after—I must say.

4144. That brings me to what I wanted to get from you: What do you suggest as an improvement on the organisation?—That is what I should propose—that we have a Commercial Committee.

4145. Whom would you get to start your Commercial Committee? Would you take it altogether out of the hands of the Government, and put it into the hands of a Chamber of Commerce—say, the London Chamber of Commerce?—I should think that would be a very good way of dealing with it, because a Chamber of Commerce, I take it, whether in London or elsewhere, would be composed of men who would be commercial men and who would have some idea of the value or otherwise of the exhibition, and who were the firms who should represent Great Britain at that exhibition, or who should be asked to represent Great Britain.

4146. I suppose you are aware that any amount of circulars were sent out by the Royal Commission to firms representing the different industries?—I believe that was so, and of course there were a great many of them who took advantage of that.

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4147. But you think a Chamber of Commerce would manage the thing more satisfactorily?—Of course, that is a very difficult question to put to me. I am not up in the organisation of these matters, because they have been done generally by a Commission. If it is a Royal Commission, they have arranged matters generally by handing it over to a committee, and that committee has sent out circulars and so on, and the secretary has done most of the work. I do not think that we, as a nation, have troubled ourselves very much about exhibitions anywhere. It has been more that certain manufacturers have had certain goods which they have got awards for, which awards they have used, to a great extent, as an advertisement, because, of course, they like to get awards from the different countries where they are wanting to push their goods. I think, as regards the organisation, as I said just now, I should suggest that it should be handled first of all by commercial men, but backed up by a Royal Commission.

4148. Then you see you come back to the Royal Commission after all. You do not want to depend entirely on the Chamber of Commerce?—If the Chamber of Commerce could be empowered to engage the services of our British Consuls wherever these exhibitions may be held, I should say, "Yes; certainly that is quite sufficient," and a Royal Commission would be totally unnecessary in that case.

4149. The Commissioners are in touch with Consuls everywhere where there is an exhibition?—Do our Consuls do what they might for us at these exhibitions?

4150. Can you bring forward any instance where they have not?—I do not think they have been brought into touch with anybody at all who has had anything to do with it. I think it is more a case of simply this: There is going to be an exhibition, which is probably notified by the French Government to our Government, and then it is handed down until it comes to the manufacturers through circulars. Then the manufacturers say, "Yes, I should like to go," and an agent like Day or Sage communicates with us. I would recommend you, if I may, on this point to ask Frederick Sage and Co. to give you some information; they are manufacturers of show-cases.

4151. They are the great show-case people, are they not?—Yes.

4152. Are they agents of yours?—They have represented us, or, rather, they recommended Mr. Meadows, I think it was, to represent us, but they made our show-case. They take a great interest in exhibition work, and I think they might be able to give you some valuable information.

4153. Naturally, because they make the most valuable cases, do they not?—Yes, and they have a good deal to do with shipping them out; and they employ Messrs. J. Meadows and Co., I think, whom they recommended to us.

4154. Did you pay a lump sum to your agent, or did he send you bills for his services?—There is no rule to go by. In the case of South Africa——

4155. Cannot you give me Paris?—No, I had to go direct with the Parisians over the Paris Exhibition.

4156. Who paid the transport fees?—I paid my agent all our transport fees and everything. They admitted all goods duty free, and we paid in that case Mr. Day so much for attending to our exhibits during the time the exhibition was open, and then any expenses that he had were put before us, and we reimbursed him for them.

4157. Of course you are aware that the Government spent a very large sum, over £100,000, in Paris?—No; I was not aware of that.

4158. They have done that at these large exhibitions?—I must say that if they spent as large a sum as that, I should very much like to know where it was spent and how it was spent. I think it would be a very difficult thing to find it; £100,000 is a very large sum, and if such a large sum as that was handed over, I should like to know whom it was handed over to, and who really had the spending of it.

4159. If you had a catalogue you would see the names of the Commissioners there. Sir Herbert Jekyll, who was then Colonel Jekyll, was the Chairman of the British Commission?—I know his name very well.

4160. He was there for many months, and did all the work there?—As regards any money being spent by our Government on the show itself I must say that on my behalf I fail to see where it could have been spent.

4161. Did you do your own decoration, or was there none?—We had simply the case. Our case has a crimson carpet to it, and railings round, with silk cords and books, and that sort of thing. Of course, we had to pay everything in connection with the case, and I do not think there was any decoration. I have never heard that there was even anything paid towards the building which covered the cases in, let alone any decorations. I think we did not pay for space anyhow directly.

4162. Did you pay much for the handling of your goods—that is, for the services of the workmen who put your case into position, and that sort of thing?—That was done through our agent; that was included in his charges.

4163. So you do not know whether it was cheap or dear?—No.

4164. And do you know whether you paid the full railway rates for taking your goods to Paris?—I think there was some concession with regard to that, but I am not quite certain.

4165. Do you belong to the London Chamber of Commerce?—No, I do not.

4166. Have you no experience of Chambers of Commerce?—No; I have nothing whatever to do with them.

4167. I gather that what you really would suggest is that at an early stage the Commission should get in touch with and form a good commercial committee?—That is my idea in respect to an international exhibition. I think that we have neglected that point somewhat in our country. Other countries seem to have amalgamated throughout, or, rather, they seem to have grouped their exhibits.

4168. You mean that they have had what we call collective exhibits?—Yes. They have made it more a national exhibit. When you see a national exhibit, that makes a great impression on you. Take Russia, for instance. I do not know whether it would appeal to everybody else's mind as it does to mine, but it appeared to me that the Russians were showing things which in the ordinary way you would not see if they had not had them grouped together. For instance, there was their lovely jewellery and their beautiful enamels. If I wanted to buy any enamels now of that kind I would naturally say I should like to have Russian enamels. It has that effect on the public mind. When you go into a place and see these things you would connect them with Russia, but if anybody went into the paper department they would see something from Japan, they would see something from France, and they might see something from the United States, and they would see Ford's blotting-paper from Great Britain. You may say, "That is all paper, which is placed together." "Yes," I say, "but it does not connect the manufacture with Great Britain at all."

4169. I suppose there were very few British exhibitors in the paper and stationery department at that exhibition?—I could not tell you how many there were. They were so crowded together that there was hardly room to walk between the cases.

4170. But yet it made a very poor-looking exhibit?—Naturally, if you crowd an exhibit into a very small space it takes away the weight of it. If you have it in a large space with a beautiful roof over it and some decorations it adds to the beauty of the exhibit considerably.

4171. Would you have preferred to have been in a collective exhibit which had been properly housed and well decorated and better spaced?—And with the name of the country which I represented—yes.

4172. Was not the name of the country over you at all?—No, nothing of the sort.

4173. Nothing?—There was nothing to show I was a Britisher, except, of course, that there was my firm's name upon the case.

4174. (*Mr. Malcolm Ramsay.*) In considering whether you would go to any particular exhibition of which you have heard, have you been very much influenced by the consideration whether the Government would be officially represented at that exhibition or not?—No, I do not think so, providing the inquiries that I have made with regard to the exhibition have been satisfactory. I do not go to every exhibition. In

answering that question, I would refer you to the fact that I was exhibiting in South Africa. Thatwas an exhibition which I believe was got up just after the war, more or less by a private syndicate. I do not know that it was even acknowledged by the British Government.

4175. At any rate, we were not officially represented at it, I think?—No, we were not.

4176. So that really you consider an exhibition simply in itself?—Exactly. I look upon exhibitions very much as an advertisement for the opening up of new trade in new countries, in addition to showing an article which I am always convinced will take the highest award—a medal or a diploma of honour, or something of that kind, which is to every manufacturer some advantage—it is a proof, I mean, that the goods which he is advertising are better than anybody else's, or as good, or whatever the case may be, according to the award which he has obtained there.

4177. Supposing the British Government were to decide to withdraw from officially participating in international exhibitions, would you still go on exhibiting?—Yes, I think so.

4178. May I infer from those answers that you do not for your own part look for any direct financial aid from the Government in connection with exhibitions?—I do not know that we have ever had any, at least we have not had any that I am aware of. I was very much surprised to hear from the Chairman that £100,000 was allocated to the Paris Exhibition of 1900. This is the first I have heard of it, and if that was the case I should personally, speaking as an exhibitor, very much like to know where it went to.

4179. Did you get much result in the way of trade or advertisement from your participation in the Australian Exhibitions of 1887 and 1888?—We have done an increasing trade ever since we first exhibited there. I am not in a position to say whether that trade has been obtained through the exhibition, but I think that the exhibition was a good introduction to it. Having exhibited there, and having got two medals at Adelaide and Melbourne respectively, we went to some expense in advertising there, that is, in placing samples of our blotting-paper before likely users. We have got the principal Government contracts there at this day, and we are doing an increasing business there. Whether that is owing to the exhibitions, or more especially to the advertisement, I am unable to say; but I should rather think that the advertising has, as it were, spread it on after the introduction through the exhibition. I do not take it that because I exhibit paper, or my people do rather, in 1887, that that is going to make a business for me at once, because I do not think it would for a moment, but I think it opens up business—it introduces the paper.

4180. Might one put it in this way—that an exhibition is one form of advertisement, just as a direct advertisement in a newspaper is another?—Exactly.

4181. And both of them may be useful in a business?—Yes.

4182. Would you like to rely exclusively on employing your own travellers, and drop exhibitions altogether?—In that case you see there is no competition, and we should have nothing in foreign countries to show that our goods are better than anybody else's except we advertise them in a very large way. We should have to send samples to everybody, and let the people prove to themselves that they are better. I think they are more likely to believe they are good if you have exhibited in their own country, and have obtained from their own experts the highest awards. That is the way I have looked at it.

4183. Returning to the question of Government help, would you say that the organisation was the most important point?—Yes, most certainly.

4184. Would you attach more value to having a good organisation than to getting any formal subsidy?—To my mind it appears a national matter. If a nation is not well represented and the exhibits are placed about and are not grouped at all, you have an idea either that the nation is not exhibiting at all and they are going back in commercial prosperity as compared with other nations who are there and have got a very fine show; or, if you do find them about in different places, you think, "Well, they have gone back very much indeed; their Government has not even troubled to help them, or there is some other reason for it."

4185. Could you tell us whether you consider that bad organisation at any of the exhibitions to which you have been has cost you money and has increased your expenses?—That is rather a difficult question to answer, because if we had had an organisation, I take it, with regard to the money that was allotted at the Paris Exhibition, we should have probably enjoyed some of that money by having it expended on exhibits from Great Britain.

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4186. I was not thinking of it quite in that form. I was thinking of it in this way—that bad organisation might, for instance, have caused your exhibit to go astray, and you might have had to spend money in that direction. We had a witness here the other day who said that if matters had been properly organised at a particular exhibition which he had attended, without receiving a penny of help from the Government, he would have saved £400 or £500, because he had difficulties with the railway labour, etc., etc.?—Was that at St. Louis?

4187. Yes?—That was a very different matter. There the labour question was a very difficult one, and I know some exhibitors who went there who had to take off their coats and put up their own show if they wanted it, and they were told to do it themselves. If anybody who was with them attempted to help them they had a very bad time of it—in fact, they were told that if they did not desist they would not help them, even if they came to the terms which they were standing out for. There was practically a strike amongst the Americans at the time. Therefore, I think, that is hardly applicable to exhibitions generally.

4188. Have you never come across any exhibitions in which you have had to spend more in consequence of bad organisation?—There is the case I was mentioning just now. That was in the time when Mr. Herbert Saunders was my agent, and we went to the Chicago Exhibition. I have mentioned to you that he wrote to us and said that he would like our exhibit to go on to San Francisco. I had a letter from him then in which he said, "We have received a letter from our Mr. Granville, in which he states that at the close of the Chicago Exhibition he sent your samples to San Francisco for exhibition there, and we think an award has been obtained"—we have never heard anything about that award to this day—"but this we can let you know within the next fortnight for certain." We never heard anything more about it. I wrote for my samples to be returned. They were very valuable samples, and some I could not possibly replace. They were samples of the old hand-made blotting-paper, which were exhibited in transparencies because they were so rare. They are things you very seldom see, and they are matters of interest to people in the trade, because it is all machine-made now. The letter goes on, "After this the samples were presented to the United States of America Columbia Government Exhibition as a permanent exhibit. The samples of blotting-paper we have here in our safe." They were sent in to Exhibition. The reason I quote that letter is because I think if we had had a proper organisation to look after our interests there, that would have been even better possibly, as they would have had some power in a way to deal with these matters and to obtain for us our samples, which apparently seem to have been lost.

4189. (*Chairman.*) That was in Chicago in 1893?—Yes.

4190. The British exhibit there was managed by a Royal Commission consisting of the Society of Arts' Council, as a fact, was it not?—I believe it was.

4191. (*Mr. Malcolm Ramsay.*) You were speaking just now of the value of awards; I gather that you think that the man in the street does still attach great importance to a firm getting an award?—I think so.

4192. Do you think that awards are as useful now as they were when exhibitions first started?—It depends, I think, very much on the exhibition. I think at international exhibitions where the awards are given by experts who are independent and who have no particular reason why they should give an award to any particular exhibit, that they are certainly as useful as they were.

4193. At all events they are still good as an advertisement?—I think they are, because the goods exhibited are always exhibited in comparison.

4194. And the awards really act as a certificate of quality?—Of quality as a rule.

4195. You think so?—That is the way I have looked

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upon them, but of course I am unable to say whether they are as valuable now as they were in the old days. We have got them, as I say, right away from the commencement.

4196. You got an award in Paris; I think you said it was the *grand prix*?—The first award we got was at Paris in 1855. Are you referring to the Exhibition of 1900?

4197. I was thinking of the Exhibition of 1900?—We got a gold medal in Paris in 1900.

4198. With a firm of your standing there would be no question about that; but do you think that, leaving your own merits out of consideration, the system of awards really is a very satisfactory one, and that awards are given according to individual merits?—Yes; we have had reason to believe so.

4199. Some of the evidence we have had has rather been in the other direction, and that is why I asked you the question?—I think in some small exhibitions, perhaps, they are likely to gave awards where they wish to please the agents rather than for the merits of the article exhibited; but I think in large international exhibitions that is not the case. You see they have got no reason for doing it in the case of the large exhibitions. You cannot get at them, as it were, and there is no bribery and corruption; whereas in the case of a small exhibition there might be, perhaps.

4200. And the award might depend upon the energy of the agent?—Exactly so, or upon the money the agent had to spend in obtaining the highest award. That is not my experience, and that is only what I have heard. My firm has never, to my knowledge, had anything of that kind before them at all. Simply the goods are there, and the contract is made with the agent for expenses and so much remuneration for himself, and there is an end of it as far as we are concerned. I do not think Mr. Arthur Day would lend himself to any of those scurrilous sorts of arrangements.

4201. You will understand I do not wish to suggest that your firm adopted any other line?—I quite understand that it is not meant for a personal matter, but of course I am obliged to answer you from the personal point of view, because my experience in exhibitions has always been with regard to our own blotting-paper.

4202. (*Mr. Harris.*) Following up a reply you gave just now, did you have any conversation with others who were exhibitors of paper at Paris at the same time as you were, and did they express the same discontent that you have done with regard to being cramped in a small place?—No. The loudest complaint I heard with regard to that, except my own, was from my agent, Mr. Day. He was representing several British firms. He is an agent who is well known to most of the exhibitors, and he was a man who was loud about it. When he comes back, he will have a good deal to talk to you about on that point. I had no opportunity of communicating with any other paper manufacturers there at the time; in fact, I doubt very much whether they were there—I think they were represented by their agent. If they were there, they did not happen to be in the Exhibition at the time that I was.

4203. Do you think that all had an exhibition agent to represent them?—I think so. It would not pay the manufacturers, anyway, to go there themselves—they could not afford the time.

4204. If you had not had an agent, do you think it possible you might not have had an award? I want to push the inquiry as to the value of awards. Do you think that the jury could have found their way round and picked out your blotting-paper on its merits, if there had not been Mr. Day there to say, "You really must come and look at this"?—I should think that if they had a good pack of hounds and plenty of scent they might have found the case, and if they had found it probably—I have no doubt about it—they would have awarded the highest award; but whether they would have ever found it without some guide or not is a matter I am not able to say anything about.

4205. Supposing there had been a young manufacturer there who had not been up to the ropes, and had not had an agent, might he have been left, in spite of all his merits?—It is possible he might have been, except—there is just that chance—they might have come upon his case.

4206. But you are not clear about it?—I am not clear with regard to their organisation, as to whether they knew where these exhibits were placed or not. I suppose they did, because they put all the paper exhibits in one room, and therefore I should imagine that when they came to give the awards for paper they would naturally go to the paper and stationery department in the Exhibition.

4207. I suppose there is no question that it would have been part of their duty to go and see some of the paper exhibits?—I am absolutely certain it would have been.

4208. That brings us back to the question of organisation. Why do you say in your heads of evidence, "The Colonies are better looked after than the Mother Country"?—I should have put "other countries" as well as the Colonies, but it has been especially so with regard to the Colonies when we have had an exhibition in London. We have generally had a large building for each Colony; we have had the Australians showing their gold, their corn, their wool, and all that kind of thing, and we have had New Zealand showing her products. The Colonies have generally had large departments to themselves, in which they could show everything that the country produced.

4209. Then on this point you are rather thinking of what we have done over here?—Exactly.

4210. And not at Paris or at other places abroad?—I was thinking of our own exhibitions here.

4211. You mentioned the advantage in your opinion of having commercial men on the organisation; do you not think that that might lead up to jealousy as between one exhibitor and another? One commercial man, I suggest, might be looking at his interest, and another at his, and so a good many would be left out?—There is a great deal in what you say. I fancy that the French must have found the same difficulty that you allude to, because in the case of such men being on a jury, they had to withdraw their own goods from the competition for awards; they were not allowed to put in for awards, and that was stated on the catalogue and also on their cases of exhibits. With regard to the giving of awards, you must have somebody who is more or less an expert, I think, in each department. For instance, you would not put a paper manufacturer to award with regard to steel, perhaps, or on the best way to make steel.

4212. I certainly should not as a rule.—And you would not put an engineer probably to judge of blotting-paper, or writing-paper, or other kinds of paper.

4213. What I was thinking of rather was the arrangements leading up to an exhibition, as to which you were speaking in reply to the Chairman just now.—Do you mean in regard to the organisation?

4214. I mean with regard to the organisation which leads up to an exhibition; for instance, with regard to a collective exhibit?—I think that is really immaterial; a Chamber of Commerce can do that as well as any other.

4215. You do not think that the commercial men that you would introduce would be a more biassed bench of judges, do you?—I think it is a very debatable point in some cases; I am afraid so. I should think it is very much better for a Royal Commission to manage that kind of thing and to take their own experts for the awards.

4216. Do you now see what I want to bring out?—I think I must be with you there—I mean to say, if they were awarding in the same trade as the person they were giving the award to.

4217. (*Chairman.*) Then you rather come back to the Royal Commission for general management?—For general management, I think, yes, certainly.

4218. (*Mr. Wilson Fox.*) I regret very much that I was unable to hear the earlier part of your evidence. What is the main object you have had in view in showing at these exhibitions? Is it to get or maintain an export trade, or to do your home trade good here either by having English visitors see your exhibits at the exhibition, or by getting the award in order to help advertising your products here?—I think I should say that we exhibit for all of those reasons. One does not spend hundreds of pounds to go to an exhibition at a distance without expecting to reap some benefit from it.

4219. I rather wanted to find out which particular line was in your mind when you advertised at exhibitions?—The Chairman has mentioned those matters to me, and has elicited some replies which I think

will more or less answer that. I have stated that I look upon exhibitions as an advertisement, first of all, because they introduce the goods into the country that you wish to open up trade in.

4220. That is your export trade?—That is the export trade. Then if we get an award, which we always have done—the highest award—in competition with other countries all over the world, we look upon that as an advertisement too and as a valuable asset, because we can use that as a part of the advertisement that we circulate in other countries as well as in the country in which the exhibition is held. It is a sort of certificate that it is the best of its kind.

4221. So you hope to get good from showing at foreign exhibitions by reaping benefit both in the country in which you show, and also perhaps in other foreign countries, as well as in this country?—As well as at home. It is a proof that at that exhibition where other goods of a similar kind were exhibited, our particular goods got the highest award. That is what we go for, I mean, and I am glad to say we have been successful so far.

4222. Before you enter your exhibit in a foreign exhibition, I suppose you consider what chance you have of pushing your business in that foreign country?—Yes, and I think the question of the tariffs comes in.

4223. Would you consider the question of the tariffs before you show?—Certainly. We have not done so in the case of America hitherto, but I doubt very much whether we should find it worth our while to go there again. We got the highest award at Chicago, and we then tried to sell our goods in America, but we found the tariff was so prohibitive that although I have done everything I can to introduce the paper there, unfortunately we are unable to do any business.

4224. (*Chairman.*) What is the tariff, 50 per cent. or 40 per cent.?—It was 33⅓ per cent.

4225. (*Mr. Wilson Fox.*) Is the competition as keen there as it is in the home trade?—Do you mean to say do they compete with us over here?

4226. No, there—have they got successful manufactories of blotting-paper?—They have manufacturers over there, but our blotting-paper, as I was pointing out to the Chairman, is of rather a different kind.

4227. I see you showed in New Zealand in 1882?—Yes, we did.

4228. You have not shown in the recent New Zealand Exhibition, have you?—No. That is on this year. We have not gone out there again. Professor Julius Von Haast asked us to leave our exhibit exactly as it was in the 1882 exhibition, when they awarded us a gold medal, and we left it as a permanent exhibit in their museum at Christchurch. We thought it was not worth going out again as we had got the highest award we could get, and it was an expensive thing, and so we did not take it up.

4229. Do you find exhibiting at a foreign exhibition a very troublesome matter?—I have never had anything to do with getting up a foreign exhibition.

4230. I mean getting up your own particular exhibit?—No, because you see we have now arranged how we are going to show. We have been going to so many that it is all cut and dried, and if I had a notification now that there would be an exhibition anywhere, it is all ready to go off at a moment's notice.

4231. Your class of goods is not a particularly expensive one to get about with, is it?—It is so to us, because the case is bulky.

4232. But it is not brittle?—The bottles which contain the samples of pulp from which we manufacture the paper, and which also contain the colouring matter, are brittle. We had splendid testimonials from the Americans with regard to the colouring matter, which contains no china clay, but is absolutely pure, and yet our colours are well distributed. The papers are made from pure cotton stock, and have great absorbing powers. Those were matters that the Americans took up, and they had experts to judge of the samples we sent. That was their report, which we set great value upon. But as regards competition and trying to sell the goods, or getting anything in that way, of course it is out of the question and we cannot do it. They would rather have their own stuff than pay the enormous price they would have to pay for ours. The tariff is prohibitory.

4233. I think the general effect of your evidence, as far as I have heard it—and I am sorry that I did not hear it all—is that as a matter of business you consider that showing at international exhibitions is a good advertisement?—Yes, certainly; to have any chance it is essential.

4234. Apart from the tariff question?—I do not know. I think I should feel inclined to consider the tariff question in future, because I look upon an exhibition as an introduction of the goods, first of all, to the nation holding the exhibition. It draws attention to them. If I simply went for an award, I probably should not spend quite so much on it, yet I should go.

4235. You said the tariff in America is very high?—Yes, it is.

4236. Is it worth while, notwithstanding that, to show, say, at St. Louis, in order to introduce your goods to other foreigners who would visit the St. Louis Exhibition and who live in countries where the tariffs are not so high?—St. Louis is rather an outlandish place.

4237. It is; I am putting rather an extreme case?—If you say that there is to be an exhibition in Germany which the Americans are going to crowd over to, and to which all the States round Germany and the Scandinavians are coming, and everybody else, including the Russians—I should say certainly it is worth while to exhibit; but it is no good if you are going to treat exhibits as our exhibits were treated in the Paris Exhibition, because at Paris they did not get a proper chance amongst the people visiting the exhibition. They were only available for experts; they were in a corner, you see.

4238. I am assuming that you get fair conditions, of course. In reference to the point I put to you just now about America, I admit that it is an exceedingly expensive thing to show there; still, you have not only the chance that other foreigners will see your exhibit, but you have also got Canada next door; therefore do you think it would have been worth while sending to St. Louis as an advertisement?—In the case of Canada I should say most decidedly yes. We are doing business in Canada now. We have got better tariffs with the Canadians, and just within the last two or three years we are opening up business with the Canadians which we were never able to do before.

4239. Is it worth your while showing at a Canadian exhibition?—Yes.

4240. Would it be worth your while showing in America, on the chance of the Canadians going there?—I doubt that. I would not go to St. Louis because, as a matter of fact, we had enough of it at Chicago.

4241. (*Mr. Harris.*) Arising out of a question Mr. Wilson Fox has put, are we to understand that you consider your position in New Zealand so well consolidated that you can take any risks of a new firm coming in and getting the gold medal at the New Zealand Exhibition?—We did not look at it in that way quite. We had got our gold medal there, and we had got our permanent show there, and we are doing a certain amount of business with the Colony.

4242. And you have no fear as to your success?—No. Any way, we did not consider it. Supposing another firm had gone there and got the gold medal, we should have had to wait our turn for the next exhibition, when we should certainly go. My people invented it originally, and everybody else who has made it has got it more or less from our mills. It has gradually filtered through.

4243. Does the Englishman take it away with him?—He takes it all over the world through the workpeople; that is how it goes. When we do go to an exhibition we have never failed, in this particular article, to get the highest award, and we have generally competed with several of those people.

4244. (*Mr. Malcolm Ramsay.*) Would you tell us how much it has cost you to exhibit, from first to last, at any one of those exhibitions that you have been to? In other words, what does your advertisement cost you, if you do not mind telling us?—Shall I take Paris?

4245. (*Chairman.*) The Paris Exhibition of 1900 would be a good instance?—We had to have a case made for that, and I should think it cost us about £200.

4246. (*Mr. Malcolm Ramsay.*) Does that include taking the exhibit there, and bringing it back?—Yes.

4247. (*Chairman.*) And all your agent's charges?—It would be £200 to £250, and that would include Mr.

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Day's fees and everything else. You see, our exhibit is not an expensive one. The next exhibition we went to, which I think was Cape Town, would not cost us so much—it might cost us just over £100—because we should not have to buy a case, though we should have to pay the freight, we should have to pay for the space, and we should have to pay agent's fees and lighting. Cape Town is a very dusty place to exhibit in. It is all sand, and that blows about all over the place, and so you have got to pay specially for cleaning and covering the exhibit.

4248. (*Mr. Malcolm Ramsay.*) How often would you be prepared to exhibit? Would you go every year, or every two years?—No; it would not pay. We have chosen those exhibitions I have mentioned, but other people, of course, go to a great many more. We have generally chosen big exhibitions, if possible, and we have tried to do business with the Colonies. If you will look at the list I sent in you will see that Paris was the original one; then we went to New Zealand, and then to Adelaide and Melbourne. Then we went to Chicago in the hope of doing business there, which we found an absolute impossibility; and then we went back to Paris again with a view of opening up an agency there, which I have done. Since then we have gone to Cape Town, and we have found more business arising from that. We have neglected New Zealand this year, because we have already got an award there, and the business is not so very great in New Zealand that it tempts one to go and try to open business there. If there had been a Canadian exhibition we certainly should have gone to it, and if there is going to be an international exhibition in London we shall certainly go to that; and with regard to any large place, such as Berlin or anything of that sort, I think it is quite possible we might go there.

4249. (*Mr. Wilson Fox.*) Have you volunteered to go to these exhibitions, or has someone on the executive of the Commission written and asked you whether you were prepared to exhibit?—We have had an intimation generally either from the Board of Trade or from the Royal Commission which has taken the matter up, and after that we have been approached by the agents, Messrs. Day, Sage, and Saunders. It is their business to see to it; they know that we are exhibitors, and they always apply to us, and get the agency if they can. There is generally a great competition to get the agency. They want to get as many agencies as they can to represent. That is the way it is done. It is a kind of private arrangement, more or less, and our Government do not seem to have taken the matter up at all with a view of having a national exhibit and showing the world that Great Britain is still the greatest manufacturing country in the world. They seem to neglect the idea that that is any good to us as a nation. My own opinion is that we ought not to neglect it, and that we ought to make as good a show at a large exhibition like Paris, or any other large exhibition, as other countries do. I do not think we ought to hide our light under a bushel.

4250. Might I just follow that up? You said, "any other large exhibition," I think?—Yes.

4251. That would depend upon how often these exhibitions were promoted abroad, would it not? What limit should you say should be put to the British Government acting in that way, and spending a very large sum of money in getting manufacturers in this country to come forward, as they would have to come forward, whether they wanted to exhibit or not, so that we might get a representative exhibit? There are two aspects. There is the financial aspect to the Government, which possibly may not be such a very important one, if there is a great stake at issue, and there is also the other aspect, that you will tire out the manufacturers and traders of this country by asking them to show too often. How often do you think that the British Government could successfully organise a large exhibit of British goods to send abroad, and what sort of intervals should there be?—It seems to me they are somewhat intermittent. Whenever these nations like to have a large exhibition I think we ought to be represented there, whether they happen to come two years together or ten years apart. They do not come very often, in fact. If you were going to make a regular thing of exhibiting at every little ambition, I think you would find you would not get manufacturers to go to it.

4252. As a commercial man, and knowing commercial men, do you think they would become reluctant to exhibit after a bit, if too great demands were made upon them?—Yes, I think they would, because it would be to many people much more costly than it has been to me.

Mr. Philip Baker, called and examined.

Mr. P. Baker.

4253. (*Chairman.*) Your firm is an important firm, making, I think, principally machinery for bread and biscuit baking, and so on?—Yes, that is so.

4254. Have you been long in business?—Yes; we have been in business for about forty years.

4255. I will just take you quickly through the answers to the questions you have been good enough to send up. You have exhibited at a good many international exhibitions, I think, including London in 1884, Amsterdam in 1886, Adelaide in 1887, Barcelona in 1888, Melbourne in 1888-1889, Paris in 1889, New Zealand in 1890, Chili in 1890-91, Tasmania in 1891-2, Kimberley in 1892, Chicago in 1893, Augusta in 1893, California in 1894, Paris in 1900, and St. Louis in 1904?—Yes.

4256. There are one or two in that list that I do not think I have heard of. The exhibition at Augusta in 1893 was not a large one, was it?—That was not a large one; it succeeded the Chicago Exhibition.

4257. Then there was the Californian Exhibition in the next year, and then you mention the Paris Exhibition of 1900, and the St. Louis of 1904; those are the two large modern ones?—Those are the two large ones. Then, of course, there was the Paris Exhibition of 1889.

4258. You exhibit chiefly biscuit machinery and ovens, bread-making and cake-making machinery and ovens, and chocolate and confectionery machinery?—Yes; those are the various things.

4259. Their value being about £3,000, I understand?—That would be about the average. In some of the larger exhibitions there would be considerably more than that. I was taking it rather as an average, bringing into the calculation some of the smaller ones, which would be £2,000 to £3,000.

4260. Have you had an increase of business with foreign countries which you can attribute to these exhibitions?—Undoubtedly.

4261. And you have not experienced any disadvantage in the way of imitation up to a certain extent?—I cannot say that we have. It is perhaps a guarded answer to say there has been some, it is difficult to trace any. The disadvantage has not been serious, certainly.

4262. I suppose there is competition in your particular line of machinery abroad?—Yes, there is competition.

4263. And at home, too?—Yes. In regard to copying, our competitors are almost the first to get information of new machines and so on, and they have other means of doing it besides going to an exhibition.

4264. They would not wait for an exhibition?—No, they would not do that at all.

4265. They would come over and buy a machine?—They would copy it from our advertisements or a copy of our catalogue. Machines are the easiest things in the world to get, because they are made to sell.

4266. Do you attach importance to the awards you have got at the exhibitions as a means of advertising?—We do. For one thing it gives one standing; people see at any rate what you have been doing, and to a certain extent it is an acknowledgement of merit.

4267. I suppose you have had a good many awards?—Yes, we have had a large number.

4268. Do you use them in your advertisements; do you put them in a case or show a photograph of them?—Not in that way, but we use them on our catalogues.

4269. On your catalogues and cards, too, I suppose?—Yes, and on all our papers we say that we have so many gold medals—35 or 36 gold medals, or whatever it is.

4270. Have you ever bought materials or machinery as the result of seeing what is being shown at exhibitions?—Yes, we have in some cases bought new machines for our works.

4271. Which you could not have bought so easily in any other way, because you could not have seen them so easily?—Probably they would not have come before our notice. It has not happened to any very great extent, but we have in several cases found machines exhibited that we have bought as the result of seeing them at an exhibition. Perhaps we would not have known of them otherwise. A case happened not long ago.

4272. What was the case?—It was a case of a special machine that we wanted. It was a polishing machine really, and it effected a big saving of labour. We saw it working.

4273. Where?—At the Machinery Exhibition here in London.

4274. Which exhibition was that?—The Engineering Exhibition at Earl's Court. That is the most recent case that comes to my mind. We saw the polishing machine working, and got facts and figures with regard to it, the result being that we bought one. Probably we should not have known of it, or would not have bought one if we had not seen the machine working in that way.

4275. With that machine do you effect some ecenomy in manufacture?—Yes, a very great economy.

4276. Where you have not exhibited at exhibitions, what are the reasons that have induced you to discontinue exhibiting?—One of the reasons is that we have been very busy at the time, and could not do it. But it would be more largely a question of the expense connected with the exhibition in question, and our thinking that for our purpose it would not pay very well to exhibit in that particular exhibition. Our policy has been to exhibit well or not at all, and exhibiting well means expense.

4277. I suppose it means a very large expense?—It means a large expense.

4278. Going to St. Louis must have been very expensive, must it not?—Yes, it ran into a lot of money; that was very expensive.

4279. There did you have any great trouble in having your machinery put up and in getting it unpacked?—We had very great difficulty. Everything was at sixes and sevens there, and the congestion on the railways was tremendous. The amount of difficulty in getting the stuff there and in position was very great.

4280. But when you got it into the exhibition had you any difficulty on account of labour being scarce?—Not specially, I think. We managed all right for labour there, I think.

4281. You did not pay an extraordinary price for labour?—I have not got the figures here, and I was not there myself superintending it at the opening of the exhibition, so I did not see it. We sent over two or three men from this side, and they took charge of the erecting, and I do not think they experienced much difficulty in getting help. I think they had not to pay much beyond the ordinary wages; we have not had to do so at other exhibitions.

4282. Were you at Paris in 1900?—Yes, I was at Paris.

4283. Can you give us your experience there?—We had not any difficulty there at all.

4284. I hope you got help from the Royal Commission, the superintendents and so on?—We did. We found the officials very courteous and obliging and very helpful.

4285. Helpful, do you say?—They helped us considerably in Paris, more than in some other exhibitions. It was well done there.

4286. And you got a proper site to show your machines?—Yes, we did. There was a difficulty with regard to the site. We erected a separate pavilion in Paris at the last exhibition. We made the pavilion in this country, and took it over. That meant a large expense. When we got there, there was some dispute with the authorities about the space, the position and so on, but the British officials came to the rescue in a very kindly manner, and they helped us considerably over that; they were a real help.

4287. They got over the difficulties for you?—They got over the difficulties for us then.

4288. You are speaking of Sir Herbert Jekyll and his staff?—Yes.

4289. Was it a large expense that you had at Paris?—Yes.

4290. You have not the figures here, have you?—I have not.

4291. Could you give it to us roughly?—What with the building and the plant we put in, and so on, it would be in the neighbourhood of thousands. We had another firm who shared with us— the firm of Olibet and Co., a well-known firm in France. They put up a pavilion, and we put up a large plant of biscuit machinery for them. Taking that in conjunction with our own pavilion and another exhibition that we had in the Machinery Hall it would run into £7,000 or £8,000, perhaps more, perhaps £8,000 or £10,000.

4292. (*Mr. Malcolm Ramsay.*) Do you mean that you were that much out of pocket?—No.

4293. Or that you spent that amount?—No. We had to put plant down to that value, and to spend money, and so on. There was a source of gain in this exhibition, because facilities were given for selling the products of the machinery.

4294. (*Chairman.*) At the time?—Yes; the machinery was working.

4295. Was it running every day?—The machinery was running all the day, and the goods were being produced and sold to the public. The income of that helped us considerably.

4296. Was it only produced for the exhibition? Were only the people in the exhibition eating your products, or were they on sale in Paris generally?—They were only for sale in the exhibition. That was to show the machinery at work in an attractive way, and to show what the machines would really do.

4297. It was a very good advertisement I should think?—It is the best way of advertising. Dead machinery is very uninteresting; if it is running and producing something it is an attraction at once to the public and also to your customers.

4298. Generally, your views of the organisation, as far as Paris is concerned, are rather favourable?—Yes, as far as concerns the last exhibition at Paris. In some exhibitions there has been a great difficulty in getting things done; there have been delays and lack of attention.

4299. Can you think of any recent exhibition in which you would like to criticise the management? There was Chicago in 1893; do you remember that?—Chicago and St. Louis were really much the same.

4300. Did you do a good business after Chicago in America?—A very good business indeed. It was a very satisfactory exhibition from every point of view.

4301. Have you ever thought over the subject generally, and can you say whether, speaking independently of your own goods and for the general purposes of exhibiting, an improvement might be made by having a more permanent organisation?—It would undoubtedly be an improvement, because the organisation of exhibitions is a business in itself, and inexperienced men cause any amount of trouble. Inexperienced men do not know how to go about the thing; they have to gain their experience, and they gain their experience at the expense of the exhibitors. In the case of Paris, I think most of the leading officials there were experienced exhibition men, if I remember rightly; at any rate, it is essential that men should have experience in exhibitions from one to another in order to enable them to oil the wheels properly, so that the thing should run smoothly. It has not been a question of the lack of disposition to help, but it has been rather the inexperience and the inability to organise everything properly and attend to the requirements of the exhibitors.

4302. You thought, I understand, that the people at Paris, who had had a good deal of experience, were satisfactory in helping you?—Yes. I think that probably accounted for it largely. At any rate, it is an axiom I think in exhibition work that only those who have been through the mill can help adequately, because there are so many details in connection with it which require attention. We have gained our experience, but of course we have had to pay for it in the first instance. We can exhibit now very much

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more easily than we could at first, simply because we know the ropes, and how to go about it.

4303. You mean in packing your goods and sending them off, and in deciding whom to send with them?—Whom to send with them to look after them, how to arrange matters in the exhibition, and so on.

4304. On the general question, you think that this country should not hold aloof from exhibitions?—Decidedly so. I think we want to advertise as much as possible. I think it pays you to give prominence to the chief manufactures of the country. We have found it so in practical experience even in supplying specialties, but when it comes to the general merchandise that the world wants to buy, I should think it is essential to exhibit.

4305. I suppose it would be easier to exhibit specialties than to exhibit staples, which are much the same in every country? You would get more out of it by exhibiting specialties, would you not?—I do not know. I cannot speak for other people's experience, but I think that the nations who are spending money in exhibiting, and pushing their wares, get in that way a very fine return for it.

4306. You think that the nation, as a nation, should have a good and creditable exhibit at a big international exhibition?—I do think so. I think the Government should be asked to subscribe very largely towards a large international exhibition.

4307. Do you think, taking Paris, that the Government grant was not sufficient?—I do not think it was enough. It was not adequate. We could have had a better section than we did. It was better possibly at the last Paris Exhibition than it has been at some others; you have fixed upon one where we did it pretty well, I think.

4308. There was a large amount of money spent by the Government there—over £100,000, was there not?—Some of the others have not been backed up by the Government so well.

4309. What particular branches of expense do you think should be helped by the Government?—I think in the matter of decoration more should be spent on making the section more attractive. I think exhibitors who exhibit very largely and are spending a lot of money should have grants in the shape of facilities being given for getting their goods there free of charge for freight, and the same when returning.

4310. You got some reduction of freight, did you not?—In some cases. I think there was, if I remember rightly, in the St. Louis Exhibition, and I think there was in Chicago; but it has not been so in all exhibitions. I think more could be done in that direction, and that it would be a means of getting a larger number of good exhibits.

4311. Did you think that at these two recent exhibitions, St. Louis and Paris, Great Britain was satisfactorily represented as far as machinery was concerned—I do not take only your own machinery, but I am taking machinery generally as machinery?—No; I think not at all adequately. In St. Louis there should have been a great deal more machinery exhibited than was exhibited. I forget what proportion of space there was in the agricultural building in the British section; it was not a very large amount of space I know, and there was not a great deal left after our exhibit was taken out.

4312. How did you get such a proportion of the space for machinery?—It was in the agricultural part of the British section, and I am speaking of that particular part relating to food machinery; I am not speaking of the section relating to fabrics.

4313. In food machinery your firm had a great proportion of the space?—We had a large proportion. There ought to have been a larger display, I think.

4314. Are there many firms manufacturing your particular machinery here?—Not a very large number.

4315. Then you are almost the only possible exhibitors?—No. There were one or two others, but we had the principal exhibit. You will find an illustration of our exhibit in the St. Louis souvenir album.

4316. I have got it. You say in answer to our last question that there should also be less red tape in connection with the organisation and more practical help and support given to individual exhibitors. In what particular points has the red tape been too apparent?—The business was delegated from one to another, instead of there being one man who was thoroughly competent to be appealed to. Possibly an appeal is made to someone, and it is passed on to someone else, and then possibly to a third party, before anything is done. That necessitates delay and also divided responsibility, so that the unfortunate exhibitor has to suffer. In the case of exhibitions time is of very great importance, and in installing an exhibit everything has to be rushed at the last moment, and then, unless you get facilities for doing things and can appeal to somebody to have things done and to get permission, the delays will be very annoying and tantalising.

4317. Sometimes did you find a difficulty in getting at the right man?—We have found great difficulty in getting at the right man at once, and then possibly there would be two or three right men, as it were.

4318. (*Mr. Harris.*) You used the phrase just now "essential to exhibit." From what point of view do you consider it essential? Do you mean from the point of view of pushing your business?—Yes. Perhaps it was an unfortunate expression. You may do business without exhibiting, but exhibiting is a form of advertising that pays well, and it pays better than spending money in some other directions, because you have an exhibition open for six months and a permanent showroom to which your customers come from all parts of the world; your expenses are practically a known quantity and your business is an unknown quantity, but your customers are, as I say, coming from all parts of the world. You get at them readily, and by following up the inquiries that you get at the time of the exhibition good business will result. But it is necessary to follow up the business.

4319. Did you, as a matter of fact, find good results, say, in Adelaide in 1887 and Melbourne in 1889?—Melbourne, 1889, was a splendid exhibition for us, and it was for most of the British exhibitors. I was there personally at that Exhibition, and had an opportunity of judging the effects of it pretty well. It was at a time when business in Australia was very prosperous. Many of the firms as the result of that Exhibition established houses in Australia, and have been very successful since then.

4320. Have you any views as to whether business results are better from a Colonial exhibition or from an exhibition in a foreign country?—I think it largely depends on what you have to sell, in fact entirely so.

4321. Then you do not think a general rule can be laid down?—I do not see how a general rule could be laid down.

4322. One question suggests itself as a result of what you say. If business follows so well in many cases, do you think the Government is justified in giving grants to help that business along?—Yes, I do; because the more business that is secured, I think, the better it is for the country. I think it is legitimate to encourage exhibitors, because the expenses at the time are very great, and after all the business is problematical. If it is properly done, I think the business is pretty well assured, but the business will not be obtained at the time; it will be spread over some years after.

4323. Still, you think in the long run that the nation generally gets a return out of it?—I think so.

4324. You have referred also to doing good business at Chicago? What did you mean by that? Did you mean selling, as you did at Paris, the little things that you made, or did you mean that real permanent business was done?—I meant permanent business was done. The name was advertised, so that throughout the States our name became very much better known than it was beforehand. Manufacturers that we wanted to get in touch with came to us from all parts of the States, and we have had business from time to time during the years since, which has undoubtedly been the result of our establishing ourselves more permanently through the Exhibition.

4325. You mean you can trace it back to that?—We can trace it back, and we can also trace other orders that have been sent from other parts of the world as the result of that—even from as far off as Japan.

4326. Do I understand you to think that the organisation of exhibitions can be improved by having as a permanent nucleus a committee, or something of that sort?—Yes. I think that is one of the most practical ways of doing it, because the men who are appointed to it will have adequate experience. I think the best way of doing it is to have a committee, a nucleus at any rate, of experts

who have had experience in other exhibitions, and so on. It would help matters very much, I think.

4327. Then I understand you to say that on the whole exhibitions are good things for trade, and therefore we had better introduce some organisation which will keep the best apparatus ready at hand for use at any exhibition?—That is my personal conclusion.

4328. (*Mr. Malcolm Ramsay.*) I see you have exhibited very impartially at two classes of exhibitions—first, exhibitions which our Government has taken part in officially, and for which grants of public money have been made; and, second, the rest, in which we did not participate officially. For instance, I see you came to London in 1884; that was not an official British exhibition, was it?—No, that was the Health Exhibition.

4329. Then you went to Paris is 1889, but our Government abstained from that; and then you went to Chili in 1890, and then to Tasmania, Kimberley, and California; so that as a matter of fact in the past you have not been debarred from exhibiting by the fact that at certain exhibitions no Government assistance was given?—That is so. But the scope of the exhibits has to a certain extent been governed by it. In the case of Chicago, where we had a grant made for freight and where facilities were granted for cheap freight, getting goods over, and so on, we were able to exhibit more largely than in some of the other cases.

4330. So that, while the presence or absence of a Government grant may not have turned the scale in deciding whether you would go or not, it has as a matter of fact affected the class of your exhibit?—Decidedly.

4331. Do you think that your business has not got rather an advantage over other kinds of machinery manufacturers for the purposes of exhibition?—It has over some.

4332. You are able to show live machinery and turn out rather attractive cakes, and you draw a crowd of inquisitive people, and a great number of people who are on business, as well as the hungry people. You have been a very good draw, have you not, at exhibitions?—Undoubtedly that is so.

4333. So perhaps you are in a better position than some of the exhibitors?—That is only one side of it, and it does not mean as much as at first sight it seems to, because the general public are rather a bother. The object of the exhibit is to interest buyers of machinery, and the public being there are rather a distracting element. If our machinery, for instance, happened to be for making, say, cotton goods, or an exhibit like Messrs. Mather and Platt might exhibit, and the exhibited machinery could be shown at work, it would be intensely interesting both to the public and to the buyers; but my contention is that live machinery practically at work is a great attraction, and should be gone in for more by exhibitors.

4334. That is the point I want to bring out. Live machinery is more attractive than dead machinery at an exhibition, is it not?—Very much.

4335. Live machinery would also have a much better chance of being favourably inspected than, say, a steam navvy which could not be shown working?—Yes, and that should be encouraged, unquestionably.

4336. You suggested that the Government ought to do more in the way of subsidising exhibits—I forget your exact expression, but I think that was the tenour of your observation?—Yes.

4337. Do you suggest by that that they ought to give direct financial help to exhibitors?—No, not exactly. I think it can be done in an indirect way, which would perhaps meet the case, by bearing certain expenses in connection with decorations.

4338. Certain expenses of a general kind, you mean?—Yes. It would make the exhibitions more attractive. Then there are ways of helping and giving free power sometimes where they make charges; or they could make the charges for space rather lighter.

4339. Would you justify that on the ground of the national aspect of the question?—I would.

4340. As an exhibitor, being a large firm and doing a large business, would you expect the Government to help you to bear the direct cost?—No, not directly, but I want to make the charges all round considerably lighter.

4341. It seems to me that if you press the Government too hard for help in the way of money, you will get into this dilemma—either you will pile up the bill so enormously as to make financial assistance to exhibitors out of the question, or else the relief which every individual exhibitor gets will be so small as to be not worth considering. You said that you put down £6,000 or £7,000 to go to Paris in 1900; any direct help the Government could give you in the way of money would be a small sum in proportion to that outlay, would it not?—It would, but in mentioning that amount I do not want you to think that it is out of pocket altogether. The relief that we would get in cheaper space, and in freight, and in bearing some of the expense for decoration, and so on, would be a considerable amount really in an exhibit of that size. If you take it *pro rata* over all the other exhibits in the section, it would be a considerable figure on the total amount.

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4342. Would you like the weight of the Government to be put on the railway companies to get reduced freights, and perhaps to get some organisation for the supply of cheap labour?—Yes.

4343. To enable you to handle your goods you would like the Government help to be in those directions?—That would be a decided help. I had not in my mind what one of the other questioners evidently had in his mind—and you have come to it again now—namely, the question of labour. If facilities could be given for getting cheaper labour at the time it would be a help. It is in the direction of making it easier to exhibit, and making it better worth while to have a good exhibit, that I think the Government could help.

4344. Do you happen to have heard that the Commission for Paris in 1900, still more perhaps the Commission for St. Louis in 1904, had considerable difficulty in getting manufacturers to come forward and make a representative show?—They had, I think.

4345. That is within your experience?—Yes, it is. Some considerable encouragement had to be given I know.

4346. Do you think that with improved organisation on the part of the Government, manufacturers—I am not speaking of your firm, I am speaking of other firms who hung back—would be more inclined to come forward?—I think they would, decidedly. I do not see why they should not be more ready to come forward, as some of the other exhibitors have in other nations, where they have been more helped by the Government. There has been great competition for space at Milan. We have not exhibited at Milan this time, but I know that there has been very considerable competition for space there, and if I remember rightly, considerable grants have been given.

4347. You spoke of some difficulty in St. Louis, of the railways being congested, and of a good deal of trouble in getting your exhibit erected. Were you thinking there of faults on the part of the exhibition authority, or on the part of the United States people, or on the part of our own Commission?—On the part of the United States people there.

4348. (*Mr. Wilson Fox.*) Have you been to most of these exhibitions yourself?—I have been to the majority of them.

4349. Quite apart from your own exhibit, I suppose you looked round the exhibitions you have been to?—Yes.

4350. Could you say generally whether you think that the British exhibits compared favourably with the foreign exhibits, or otherwise?—Generally speaking, they have not compared favourably.

4351. That is your general impression?—That is my general impression.

4352. Is that because we send fewer classes of goods? Was it on account of the quantity sent or on account of the quality, do you think, that the comparison was invidious?—The comparison was invidious in point of quantity, not quality. The quality has usually, I think, been very good.

4353. But a smaller number have exhibited?—Yes.

4354. Is it your view?—I think it is from what I have gathered—that the British exhibitors who did not show should be induced by the Government to show by being provided with the money either directly or indirectly?—I think more of them would respond if they had these facilities.

4355. Therefore it is rather the people who do not think it worth while to advertise who would in the end

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have to be subsidised by the Government?—No. Speaking of it as a subsidy, I think it would apply to all exhibitors—those who are at present in the habit of exhibiting, as well as those who are not. But it would act in this way—that a large number of manufacturers who do not exhibit at present would exhibit, and those who do exhibit would probably exhibit better.

4356. But still, looking at it from the Government point of view, we may assume as a business proposition that it pays the people to exhibit who at present do exhibit?—Yes.

4357. If the Government find money to subsidise the rest, you are really finding money to advertise people who do not think it pays them from a business point of view to advertise in that particular form?—Exhibitors who make a very good exhibit sometimes will stop for some years and not exhibit again. They spend a lot of money over that exhibition possibly, and have found it an expensive luxury rather. Then another exhibition comes along, and they will say, "No, we had enough of it last time; we will wait awhile." It does not at all follow that because a firm has exhibited once they are going to exhibit again. It is an expensive business altogether.

4358. I will put another case to you, if I may. We are told by certain manufacturers that they send exhibits to foreign exhibitions, but in their particular trade there is no new invention or no new fashion or anything else done for ten years, and so they think that ten years is quite often enough for them to exhibit. In that case, supposing there was an international exhibition in an immediate five years should the Government, in order to get them to exhibit, although they do not want to exhibit, subsidise them to exhibit?—I think in a case like that, if there were a subsidy the firm in question would make a better exhibit, and would be induced to do so, where sometimes they would hesitate and possibly not exhibit.

4359. But still that would have to be done with Government money?—In speaking of the subsidy, I want it to be understood that I would not favour the direct grants of money to exhibitors. I do not think that is a use of Government money that would be justified.

4360. But still, in one form or another, if the Government finds, say, £200,000, whether they give cheques direct, or whether they give it in consideration of railway rates, or whether they give it for space, it comes to much the same thing as far as the Government is concerned?—Yes, it does.

4361. Take one other trade, a trade like the textile trade, who do not want to exhibit much. That is a sort of trade that does not greatly care to exhibit. Merchants buy the goods from the manufacturer, and so the manufacturer does not want to exhibit. If the Government want to get those goods shown at large exhibitions, they have to do one of two things, have they not? They have either to appeal to the patriotism of those men to show—and you can appeal too often to patriotism, perhaps, in business—or they have to pay for it?—Yes.

4362. Whereas with the machinery man, who is advertising machinery, it is the breath of his life to show?—Yes.

4363. Could you treat them on the same basis, therefore? One man it pays to show, and the other man it does not pay to show at all in his particular business. You see there are difficulties?—There are difficulties, and I see the difficulties distinctly that you mention. Each trade has to be considered on its merits in dealing with the question. I do not see how you can have altogether a sliding scale applied by a permanent body such as the exhibition officials.

4364. My point broadly is that if the Government wish to get up a big British exhibit for a large international exhibition, and have to find the money, they are on the one hand finding money for certain trades who do not want it, because it pays them well to expend the money themselves, and, on the other hand, they are finding the money to induce people to show who do not want to advertise in that particular form. That is the suggestion I want to put before you?—It is a real difficulty.

4365. (*Chairman.*) I suppose there would be gradua tions between those two classes, and there would be certain people that would show if they got a little help in the way of transport facilities and in the way of decoration?—Yes. I think that would meet the case. I do not think firms would expect to get anything in the way of a large grant, but they would expect to have facilities given, such as other nations are, at least, getting, and that Great Britain should be prepared to back up her manufactures or industries in the same way that other nations are backing up theirs in exhibitions. I think that there is nothing extraordinary in the request, and I think it is an expenditure of money that could be justified on broad national grounds.

4366. (*Mr. Wilson Fox.*) But it may come to this, when we really come to consider it, that it is as much organisation as money which exhibitors want?—Yes, I think so. It is both—organisation is essential, and money would be a very great help.

4367. (*Chairman.*) You do not want to waste your time, when you have got your things there, in looking for the right man and in getting at the authority?—That is so. And then there is the friction. It means a great deal of trouble. Of course, some of the responsible heads of firms and some of the responsible heads of departments go to look after the matter, but their time is valuable, and the bother and the worry of that sort of thing is inclined to upset the ordinary routine of business. Firms do not like that, and the less there is of that the better.

FOURTEENTH DAY.

Thursday, 21st March 1907.

PRESENT:

Sir ALFRED E. BATEMAN, K.C.M.G. (*Chairman*).
Mr. C. A. HARRIS, C.B., C.M.G.
Mr. MALCOLM RAMSAY, C.B.
Mr. S. J. WARING.
Mr. U. F. WINTOUR (*Secretary*).

Mr. GEORGE COLLINS LEVEY, C.M.G., called, and examined.

Mr. G. C. Levey, C.M.G.

4368-71. (*Chairman.*) I think you have prepared a statement which, to a certain extent, is in answer to our formal questions?—I have not prepared that exactly as a reply to those questions, because it has not been done *seriatim*, but I think it covers all the ground embraced in your questions.

The witness handed in the following statement:—

I represented the Colony of Victoria at the Vienna Exhibition of 1873, at the Sectional Exhibition under Sir Henry Cole held at South Kensington the same year, at the Centennial Exhibition, Philadelphia, in 1876, at the International Exhibition, Paris, in 1878,

and I entirely organised and administered the Melbourne International Exhibition of 1880-81, which was upon as large a scale as any exhibition ever held in this country. I was Executive Commissioner for Victoria at the Amsterdam Exhibition of 1883, and organised an International Exhibition at the Crystal Palace in 1884. I acted as representative of Sir Alexander Stuart, the Executive Commissioner for New South Wales, at the Colonial and Indian Exhibition, South Kensington, 1885, organised the British section of the Adelaide Exhibition of 1887, and was secretary to the Royal Commission for the Hobart Exhibition of 1894-95. Since that date I organised the Greater Britain Exhibition, Earl's Court, in 1899, and was secretary for the Colonial Committee of the Royal Commission at Paris in 1900. I have been present at all the great exhibitions held since 1873, with the exception of Chicago, St. Louis, and Milan.

In my opinion, considerable benefit accrued to British arts, industries, and trades from the participation of this country in International Exhibitions, and the results were such as to warrant His Majesty's Government in giving financial support to similar exhibitions in the future, up to and including the Paris Exhibition of 1878.

Previous to that date these exhibitions were conducted by a Royal Commission, frequently with the present King at their head, but virtually controlled by officials, who possessed considerable exhibition experience. Exhibitors had confidence in the management of these exhibitions, and combined with the officials to make them successful. The first great International Exhibition with which I was connected, that of Vienna in 1873, was less successful than it otherwise would have been owing to an outbreak of cholera in the Austrian capital. The British section, with which I was associated as representative of Victoria, Australia, was under the capable management of the late Sir P. Cunliffe-Owen; his relations both with the exhibition authorities and the British exhibitors were most cordial, and although the attendance of the general public was not so large as it otherwise would have been, owing to the circumstance mentioned above, I heard no complaints from exhibitors, who, on the contrary, considered that they had been afforded an exceptional opportunity for bringing their products and manufactures before the people of Austria, Hungary, Bohemia, Turkey, and what were then termed the Danubian Principalities, but are now known as the Balkan States.

The next International Exhibition in which I took part was the Centennial at Philadelphia in 1876, where I was again in charge of the Victorian Court. The British section had, so I was informed, been organised by Sir P. Cunliffe-Owen, but he was unable to visit Philadelphia during the currency of the exhibition, and the representative of Great Britain was Colonel, subsequently Sir, Herbert Sandford. Here, again, the display made by Great Britain was quite worthy its reputation as the greatest of all manufacturing nations, and the relations between the British Commission and the American officials were most friendly and cordial. Nor were there many complaints on the part of the British Exhibitors, although Philadelphia was the headquarters of the American Protectionist party, and many of the British exhibitors realised that the exports of this country to the United States were not likely to be so large in the future as they had been in the past. But the superiority of British manufactures, especially over those of Germany and even the United States, were marked, although the United States were very strong in machinery, and especially in agricultural implements.

The next European exhibition was that at Paris in 1878. The French Government made great efforts to demonstrate to the world that France had completely recovered from the disasters of 1870, and a very fine display was made by the British Empire, the United Kingdom, India, Canada, New South Wales, Victoria, South Australia, Queensland, and Cape Colony being well represented. The relations between the British Commission and the Executive Commissioner, Sir P. Cunliffe-Owen, with the French authorities, the Colonial officials accredited to him, and the exhibitors were excellent. I was a British Juror in the Food section, and had good opportunities of ascertaining the views of the British exhibitors. They seemed generally well satisfied with the results of the exhibition, in which the British Empire held the foremost position. Germany was not represented at all, and the United States very poorly.

The United Kingdom voted public money to the exhibition at Sydney, 1879-80, and Melbourne, 1880-81. The British display was good, but as I was present at both, having organised the latter, I could not help realising the superior organisation of the foreign as compared with the British sections. France, Germany, Austria, and even Belgium and Italy appeared to have ample funds for the ornamentation of their Courts, which presented a thoroughly artistic appearance. Sir Herbert Sandford, who represented Great Britain, had no funds for that purpose, and if it had not been that the Colonial authorities expended some money in the ornamentation of the British Court it would have presented a very unattractive appearance. The general feeling in the Colonies was that foreign nations were making a determined effort to capture British trade, and that the Home Government was not sufficiently alive to the possible results of their efforts. Among the incidents which followed the two Australian Exhibitions were the establishment of direct lines of steamers from France and Germany to Melbourne and Sydney, the opening of a French bank in Australia, and direct shipments of foreign produce, instead of, as formerly, via London or Liverpool, and a very large increase to the exports from the Continent to Australia, which became so considerable that the mail steamers to Australia took cargo from Antwerp.

From 1881 there has, in my opinion, been a want of system in the management of the British section of exhibitions, side by side with a decided falling off in the number and attractiveness of the British exhibits. At many International Exhibitions which were commercially important the United Kingdom was not represented at all, or, at any rate, had no official representative. The latter was the case at the Amsterdam Exhibition of 1883, although India, New South Wales, and Victoria took part, and I was Executive Commissioner for the latter Colony. In most cases when the United Kingdom participated, and expended large sums of money, the object was rather political than commercial, such as at Chicago. Many minor exhibitions were neglected altogether, or, if this country put in an appearance, it was not officially. The management was sometimes in the hands of a Royal Commission, sometimes in that of the Society of Arts, sometimes in that of a Mansion House Committee. That the United Kingdom was represented in Paris at all in 1889 was owing to the energetic action of the then Lord Mayor, Sir Polydere de Keyser. On that occasion the British and Colonial section covered 218,000 square feet, as compared with Belgium, 120,000 square feet; the United States, 113,000 square feet; and Switzerland, 65,000. Many monarchical countries were not represented at all, because the exhibition was held to celebrate the centenary of the French Revolution. But for the first time the British exhibits showed a falling off as compared with the display made by this country at the previous Paris Exhibition. Sir Henry Trueman Wood, in a paper read by him before the Society of Arts, stated that the space occupied was only two-thirds the former amount, and the number of exhibitors about one-half. Their quality must be a matter of opinion.

The United Kingdom did not make a brilliant display at the various exhibitions held in Belgium and Spain during the 90's, although strenuous efforts were made by private individuals to maintain the commercial honour of their country. I was not present at either Chicago or St. Louis, but I do not think the general verdict at either place was satisfactory so far as this country was concerned. The exhibits were in themselves admirable, but they were not displayed with any artistic effect, or to the best advantage, although the system of collective exhibits adopted at St. Louis was a distinct step in advance.

I can speak unhesitatingly about the inferior position occupied by this country at Paris in 1900, when compared with the United States and Germany. The methods of this country compared very unfavourably not only with those of the United States and Germany, but of such countries as Austria, Hungary, and Russia. Everything in the German sections had been carefully thought out, and the result was a triumph not only for German business methods, but also for their good taste and appreciation of beauty.

Upon the whole, I should be inclined to say that the money spent since 1880 has not been well spent, and that even if the amount had been larger the result would not have been satisfactory, owing to want of system. As a matter of fact, the expenditure of Great Britain has been very small when compared with that

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of other great Powers. Thus, at Paris in 1900 the figures were as follows:—

Report of the French Commissioner-General—Vol. I., 256 Vol. IV., 121.

——	Exhibitors.	Space Occupied.	Expenditure.
		Metres.	£
Great Britain -	3,193	32,512	100,000
United States -	7,610	32,047	285,000
Germany - -	2,696	53,512	250,000
Hungary - -	3,249	13,670	147,000
Russia - - -	3,179	27,554	256,000
Austria - - -	1,092	15,900	126,000

It is only fair to state that the British Colonies and India spent something like £40,000. While Great Britain loomed largely both in space occupied and number of exhibitors, her expenditure was about one-third that of the United States, less than half that of Germany and Russia, and much less than that of Austria and Hungary.

The truth is that international exhibitions have not been regarded seriously either by the Government or exhibitors of this country. Some of the lukewarmness of British exhibitors has been caused by the fiscal policy of the United Kingdom. Exhibitors complain that the information afforded by the exhibits to foreign manufacturers and to the jurors who examine the British products more than counterbalanced the undeniable advantages afforded by the advertisement of those wares to foreign consumers. When it was pointed out to British exhibitors that they had the same facility for examining the exhibits of their foreign competitors that these had in inspecting theirs, the reply was that the high price of British labour made competition with foreigners difficult, and that the high tariffs made it impossible. It was in vain that I have pointed out to British manufacturers, as I have done on many occasions, that notwithstanding all the obstacles in the way, the British export trade to foreign nations was larger than that of any other country. The reply in many cases was that they did not care to exhibit.

The great defects of the British system are:—

(1) Want of organisation in the management.
(2) Want of system amongst the exhibitors.

I have already pointed out that there have been three ways of administering the British section of great international exhibitions. It is not fair to criticise the efforts of the Society of Arts or the Lord Mayor's Committee asked to undertake a work for the performance of which they had no adequate machinery, and very insufficient funds. But when a Royal Commission has been appointed the usual system has been to place the executive control in the hands of gentlemen who have had no previous experience of exhibitions or the requirements of exhibitors. Of the three gentlemen—Colonel Jekyll, Mr. Earle, and Mr. Spearman—who were in charge at the Paris Exhibition of 1900, only one, Colonel Jekyll, had any lengthy official experience, and his only knowledge of exhibitions was that he had held the position of secretary to the Royal Commission for the Melbourne Exhibition of 1889, and on that occasion the greater portion of his work consisted in organising the Fine Arts Section.

It is probable that during his connection with the Paris Exhibition he gained a vast amount of useful experience, but at its close he received promotion and a permanent position, and when a Royal Commission was appointed for the St. Louis Exhibition another Engineer officer of great ability but no exhibition experience was selected as chief executive officer. It is impossible with such a system or want of system, to produce satisfactory results, although I am bound to say that the system of collective exhibits introduced for the first time at St. Louis was a great improvement upon previous methods.

Nor are exhibitors free from blame. The manufacturers of this country do not attach the same importance as those of foreign countries to exhibitions. These latter regard them as an admirable means for extending their trade, and obtaining new clients. In two countries the local manufacturers, producers, and merchants have established a powerful organisation which enables them to obtain the maximum of display at the minimum of cost. French exhibitors found as far back as the eighties that by isolated action they were placed at a disadvantage, and they formed the Comité Francais des Expositions a l'Etranger, which systematises the efforts of individual exhibitors and welds them into one harmonious whole. The French Government virtually leaves the question as to whether France should or should not participate in an international exhibition to the decision of this Society, and if it should decide that it is for the advantage of French commerce and industry that France should participate, this Society takes the matter into its own hands and arranges everything. The Society is composed of the principal manufacturers and producers of every department of French industry, and is worked upon co-operative principles, without profit to any individual. The method adopted by France has recently been adopted by Belgium, and I believe Japan.

I consider that all exhibition matters should be left to such a society, but that it should work in conjunction with a department of the Board of Trade; that the President of the Board of Trade should be the official head of the Society; and that a gentleman of taste, executive ability, and exhibition experience should be placed at the head of the department of exhibitions, who, with the president of this Society, should decide whether this country should take part in any exhibition, and should recommend the amount of subsidy, if any, which should be given.

Of course, the success of this department would depend almost entirely upon the selection of the gentleman who was at the head of the department of exhibitions.

4372. (*Chairman.*) I see from your statement that you have been concerned with exhibitions for a very long time; indeed, since so far back as 1873?—Yes.

4373. In that year you represented the Colony of Victoria at the Vienna Exhibition?—Yes.

4374. Then you were connected with the sectional exhibition at South Kensington in the same year, with the Centennial Exhibition at Philadelphia in 1876, with the Paris Exhibition of 1878, with the Melbourne Exhibition of 1880-81, with the Amsterdam Exhibition of 1883, and with an International Exhibition at the Crystal Palace in 1884. Then you were at the Colonial and Indian Exhibition at South Kensington in 1885, you organised the British Section of the Adelaide Exhibition of 1887, and you were secretary to the Royal Commission for the Hobart Exhibition of 1894-1895. Later on, you organised the Greater Britain Exhibition at Earl's Court in 1899, but, of course, you do not call that an international exhibition?—No.

4375. Then I think you were secretary for the Colonial Committee of the Royal Commission for the Exhibition at Paris in 1900?—Yes.

4376. And you say you have been present at all the great exhibitions held since 1873, with the exception of Chicago, St. Louis, and Milan?—Yes.

4377. Those are three rather large exceptions, are they not?—Yes, they are.

4378. You think that a considerable benefit has accrued from the participation of this country in international exhibitions?—Yes.

4379. Up to and including the Paris Exhibition of 1878, you think the Government took a stronger part than they have since?—They took a stronger and more successful part than they have since, and there was better organisation.

4380. You say that previous to that date these exhibitions were conducted by a Royal Commission; since that date, have not the big exhibitions all had Royal Commissions?—Some, but not all.

4381. Take Chicago, Paris, and St. Louis?—The British section at Chicago was really arranged by the Society of Arts.

4382. The Council of the Society of Arts was formed into the Commission, was it not?—Yes; you could not call it a Royal Commission in the ordinary sense of the term.

4383. I see that you took a part in the International

Exhibition of Philadelphia in 1876, where you were in charge of the Victorian Court?—Yes.

4384. There you were well satisfied with the display made by Great Britain?—Yes. The British section had one of the positions of honour at the Philadelphia Exhibition, and made a very fine display.

4385. They had a very good site, I believe?—Yes, a very good site. Up to that exhibition at Philadelphia in 1876, English manufacturers did a very large trade with America, because the protective policy had scarcely been introduced. There was then a great willingness on the part of British manufacturers to exhibit in America, because they saw that a great trade advantage might result from it.

4386. We have been told by several witnesses that the high tariff has stopped their trade with America a good deal of late years?—That would be so.

4387. Going now to the Paris Exhibition of 1878, you say that a very fine display was then made by the British Empire?—Yes.

4388. And the British Empire held the foremost position?—Yes.

4389. You put it, I think, as one of the reasons why our display shone as one of the best, that Germany was not represented at all, and the United States were very poorly represented?—Yes.

4390. Then we come to the two smaller exhibitions, at Sydney and Melbourne?—I cannot accept that term as regards the Melbourne Exhibition. The exhibition at Melbourne was a larger exhibition than has been ever held in this country. It was quite on the lines of the 1862 exhibition held at South Kensington. It was not a small exhibition; it was as large as any of the old exhibitions, though, of course, it was not on the same scale of magnitude as the modern exhibitions have been.

4391. It is in reference to these two exhibitions that you begin to comment, in your statement, on the want of funds for the British section; but there was public money voted for these Colonial exhibitions, was there not?—Public money was voted, but not sufficient. I think nearly the whole of the public money voted for the Melbourne Exhibition was devoted to the salary of Sir Herbert Sandford and to the Art Collection. When Sir Herbert Sandford came out there, he had absolutely no money whatever to administer his court, and we were obliged to vote him money for the salary of a clerk, and for the decoration of his court.

4392. Who voted that money?—It was defrayed out of the general funds of the exhibition granted by the Government of Victoria.

4393. I see you date from those two exhibitions the establishment of direct lines of steamers from France and Germany to Australia?—That was contemporaneous, and I think the exhibition had a great deal to do with it. The fact was that the local consumers in Victoria for the first time found out that Belgium produced glass, and that Germany produced, to a very large extent, two things, namely, cement and iron wire for fencing. So they opened up direct relations with various foreign manufacturers, and the result of that was that there were lines of steamers started direct, and the P. and O. had to open up communications with Antwerp.

4394. Apparently that result came from the activity of the Belgians and the Germans, and not from the apathy of the British exhibitors?—It arose from the fact that the French and the German exhibitors were much more in evidence than the British.

4395. Was it the fact that the British exhibits were poor at those exhibitions?—No, they were very good, but they did not bear anything like the relation that they ought to have done to the magnitude of the trade which at that time existed between Australia and England. Nine-tenths of the trade then between Australia and European countries, or more than that, was with England; after that, it was much more evenly divided. What I mean to say is, that the British exhibits at that Melbourne Exhibition did not bear any proportion whatever to the importance of the trade between Great Britain and Australia.

4396. Now we will go on to the Paris Exhibition of 1889. There you say, for the first time, the British exhibits showed a falling off as compared with the display made by this country at the previous Paris Exhibition in 1878?—Yes.

4397. That was, to some extent, on account of the Government taking no part at all in the exhibition, I suppose?—The Government took no part in it. The exhibition was managed by the Lord Mayor and the Lord Mayor's Committee. I have given a quotation from Sir Henry Trueman Wood's speech, which gives statistics.

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4398. "The space occupied was only two thirds the former amount, and the number of exhibitors was about half. Their quality must be a matter of opinion." Was that what Sir Henry Wood said?—Yes; he said that in a paper which he read before the Society of Arts.

4399. What is your opinion about the quality of the British exhibits at that Paris Exhibition?—I should have said that the quality was poor; but, of course, he did not care to say so in so many words.

4400. Then you go on to say that the British exhibitors did not make a good show in the exhibitions that went on in the 90's in Belgium, Spain, and so on?—Yes, in my opinion that was so.

4401. You were not present, as you have said before, at Chicago or at St. Louis?—No.

4402. But you do not think the general verdict at either place was satisfactory so far as this country was concerned?—That is so.

4403. You are aware, no doubt, that there were large sums voted for both those exhibitions?—There was a large sum voted for St. Louis, and I think that at St. Louis there was a distinct improvement in the way they adopted the system of collective exhibits. By that means they assisted financially a large number of the smaller manufacturers, and they made a very much better display than they otherwise would have done. They had a very considerable vote at St. Louis—something like £150,000.

4404. Then I take it you are in favour of collective exhibits for a number of our goods?—I am, very much so.

4405. What particular goods would you say especially lend themselves to a collective exhibit?—I think nearly all—not, of course, heavy machinery, but ceramics, textiles, glassware, and cutlery, all lend themselves to collective exhibits. In my statement, I have given some figures about the expenditure at the Paris Exhibition of 1900; I do not know whether you have had them already.

4406. Thank you, we have got those. When you say you are in favour of collective exhibits, do you mean that you are in favour of each nation being represented separately, or would you class the articles of all countries by their kind?—I think from the point of view of the nation, it is very much better that each nation should have its own court.

4407. There is rather a difference of opinion as to the arrangement of collective exhibits, especially having regard to the convenience of judging articles of the same class from various nations?—That could always be got over if you adopt the system of having a large court, and having the nations, France, England, Germany, and so on, arranged longitudinally, and the different classes of articles, ceramics, for instance, arranged transversely. For example, supposing you had the exhibits of France, England, Germany and Austria arranged lengthwise, and then the classes of articles, such as ceramics, cutlery and textiles arranged crosswise, then if you went through the exhibits in one direction, you would see all the ceramics, say, of the different nations of the world, and if you went through it in the other direction, you would see all the exhibits from each separate country. That was the system adopted at the Paris Exhibition of 1878, where, if you wanted to do so, you could see all the exhibits of Great Britain together, and if you wanted to see all the ceramics of the world, by walking in the other direction you could do that. That is, to my mind, the very best system for arranging an exhibition.

4408. (*Mr. Harris.*) But that would have been impossible at the Paris Exhibition of 1900, would it not?—It would have been impossible at Paris in 1900, because the exhibits were divided over such a large number of buildings.

4409. (*Chairman.*) For the plan you suggest, you want an enormous square block, do you not?—Yes. I take it that the enormous size of modern exhibitions has made anything like a systematic arrangement impossible. In Paris in 1900, from one building to

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another was sometimes a distance of a mile and a half, or, I might say, two miles, and it was a day's work to go from one end of the exhibition to the other. In those circumstances, anything like systematic arrangement became almost impossible.

4410. The same was my experience at Chicago?—It was the same at Chicago. I have a friend who took part in the British Exhibition there, and he told me that in that case you had a great agricultural hall and you had a great machinery hall, and between them you had enormous areas to traverse. Of course, you always must have your machinery hall separate, but the modern system of having separate buildings for every description of manufacture makes a systematic arrangement virtually impossible, and adds enormously to the expense of administration. For example, Germany, which spent a great deal of money at the Paris Exhibition, as I say in my statement, had to make four or five trophies—and magnificent displays they were—whereas under the old system they would have made only one.

4411. Under the old system, you would not have so many separate beautiful buildings, I suppose?—No, you would not. You would have a smaller number of very large buildings. I think the modern exhibition is a sort of megalomania, and each has tried to be larger than the other; but they defeat their own purpose.

4412. So far as the British Section is concerned, what is your criticism of it in the last two exhibitions?—I should say it has been badly managed except in the introduction at St. Louis of the system of collective exhibits.

4413. From top to bottom?—No, not from top to bottom. But I would rather not say badly managed. I think they have not been as well managed as they might have been. I do not think it is right to say they have been badly managed, because all the officials have done their very utmost to make them a success, but, generally speaking, the officials at the head of them have not had any exhibition experience.

4414. Surely several of the officials at some of the recent exhibitions have been previously employed on exhibition work?—The staff have had exhibition experience, but the policy has been always arranged by the chief.

4415. There has been a different chief commissioner, I think, each time?—Yes, there has. If you take Paris in 1900, of the three principals of the exhibition, Sir Herbert Jekyll, Mr. Earle and Mr. Spearman, the two latter had really had no exhibition experience at all, and Sir Herbert Jekyll had only had a very little. He was a very able officer, and no doubt he learnt a great deal at that exhibition, but then he has not been employed on another exhibition. At the next exhibition, another gentleman was employed, who, I likewise believe, was an extremely able man.

4416. That was Sir Charles Watson, who was then Colonel Watson, or Major Watson, I think?—Yes. He was a very able man, and I am rather inclined to think that he picked up a good deal of exhibition experience in his time.

4417. That points to your idea that there should be some permanent organisation for organising the British exhibits?—I think there should be a permanent organisation.

4418. Are you acquainted with the French and German systems of organising exhibitions?—I know the French system.

4419. What do you think of the French system?—I think the French system is an admirable one. Perhaps I may just mention my own experience with the French system of organisation. I tried to induce the French Government to come to Earl's Court and have a large exhibition there.

4420. When was that?—I saw them in 1901, I think it was. I had some acquaintance with the Minister of Commerce, and I discussed the matter with him very fully. He said that from a political point of view, nothing would give him greater pleasure than to see an exhibition at Earl's Court, but after having said that from the political point of view, he said that all matters of detail must be decided by *Le Comité Français des Expositions a l'Etranger*. I then had to go before that Committee, and I argued the matter with them. The president of Earl's Court, M. Cremieux Javal, did the same. We had several interviews, but the result of them was that they came to the conclusion that it was not advisable in the interests of French commerce to come to Earl's Court, and so it dropped. That seems to me to be an ideal system.

4421. Though they did not come into what you wanted, you thought that your proposal was well and carefully considered?—The proposal was thoroughly considered. I fought my ship as well as I could, but unsuccessfully. At the same time, I feel perfectly certain that the decision arrived at, although I do not say it was a right one, was arrived at carefully and deliberately.

4422. What is your opinion of their methods of getting hold of exhibitors?—Nearly every man in France who is likely to be an exhibitor is a member of the *Comité Français*.

4423. Are there as many people in the south of France who are members as there are round about Paris?—Yes. They have an enormous clientèle—several thousands. They have the silk people of Lyons, the manufacturers of Roubaix, and the manufacturers of Limoges, the wine growers and the olive growers—they are all in the society. If that society says, "We have come to the conclusion that it would be advisable for the French exhibitors to go to any country you like"—Ruritania, we will say—then the individual exhibitor feels that it has been carefully and maturely considered, and that it would be very much to his interest to go there if he can make arrangements to do so. They do everything in a large way, and they know exactly the tradesmen to employ, and the furnishers to go to, and so they make a very fine and showy display at a comparatively small price. They make a collective bargain with the exhibiting nation for the charge for space, and then they apportion that out amongst their clients. The result of that is that they get together a very fine exhibition at a, comparatively speaking, small expense—small, that is, as compared with the effect they produce.

4424. Do you think such a society would be possible in this country?—I see no reason why there should not be one, if you could get British manufacturers to look at exhibitions from a serious point of view; but—I am only reiterating what every British Consul in foreign parts says—British manufacturers do not understand advertising in foreign countries, and they do not understand how to keep their wares well before the public.

4425. Take the textiles coming from Yorkshire, which will be in fashion six months hence, you would not have the manufacturers exhibit them so that their patterns could be copied, would you?—I would not have them exhibit things which are of an ephemeral character; that, perhaps, would be unwise. But there are an enormous number of things which are not of an ephemeral character. For example, I have got in my mind an exhibition which I saw, at which there was a very considerable number of English cloth manufacturers exhibiting, and also cloth manufacturers from Verviers in Belgium. The English cloth manufacturers exhibited great rolls of cloth all over the place, but with no organisation or attempt at display. On the other hand, the Verviers court was an exceedingly pretty court, with all the cloths and other things very nicely arranged, and everything shown to the very best advantage. Anybody going into those two sections would have supposed Verviers was infinitely more important than the West Riding of Yorkshire.

4426. I suppose our people are content with ordinary advertising, and with selling their goods through agents and merchants abroad?—Yes; for example I have seen a South American town covered over with posting-bills in the English language.

4427. Still you think that some such society would be possible in this country?—I see no reason why it should not be. If such a society could be organised and started by people who could inspire the notion that it was not done merely to exploit the promoters of the society, I think that English manufacturers would be very glad to join such a society.

4428. You say you think that the President of the Board of Trade should be the official head of such a society?—I think so.

4429. And that there should also be a small permanent department for exhibitions?—Yes.

4430. Their duty being to keep the records of exhibitions and carry on the traditions?—There should be

a small permanent department, so that the experience of one exhibition might not be lost to the management of another.

4431. What is your opinion about the awards at exhibitions; would you keep them on. Do you think they are still looked upon as valuable?—I think they are looked upon as very valuable, but I am not so sure about their always being awarded according to the merits of the exhibit. At Paris in 1900 the system was an extremely wise one, so far as the group juries were concerned, but then the decisions of those group juries, who really made a careful examination of the products, were very often overruled by the superior jury, who had no real knowledge of the matter at all. These decisions of the superior jury were very frequently given from political causes, rather than upon the merits. For example, they would say, "Well, Spain has not got more than so many gold medals; we ought to give her a few gold medals"; or "Great Britain has got rather more gold medals than she ought to have, and we must cut some of them down." That sort of feeling is allowed to influence the superior jury, but the group juries took an enormous amount of trouble, and made, to my mind, extremely equitable decisions. I was a member of the group jury for agriculture, and I am sure that we were most painstaking; and it was very mortifying, after we had come to decisions, after a great deal of trouble, to find that they were interfered with—not always, but to a certain extent—by the superior jury who knew nothing whatever about it. For example, I recollect getting the very highest award for a Canadian plough, which certainly was the best plough in the exhibition. It was admitted to be so. But that was cut down by the superior jury, who had never seen the plough, and knew nothing whatever about it. They thought it an impossible thing that a Canadian plough should be better than the ploughs of other nations, which were better known, and much larger.

4432. Do you go so far as to say that the awards were given to a certain extent upon the reputation of the firm or of the country, rather than upon the excellence of the article itself?—Those considerations are allowed to have too great an influence; I do not mean to say that they are the only things which are considered, but too much importance is attached to them.

4433. Still, with all the faults of the system you would not do away with awards?—No, I would not.

4434. Then as regards what should be paid for the exhibitor in the case of his exhibits, do you think he should be assisted as regards the cost of space?—I think that in an international exhibition an exhibitor should have free space. If the Government are very liberal they might give him free freight and free transport, but I do not think that is essential. What is required is that there should be some cheaper method of organisation which, as I suggest, could be done through that society. As it is now, supposing I lived in a country town and were a glovemaker, and I wanted to exhibit at a large international exhibition, I should have to arrange all my organisation for the representation of my goods. Either I should have to send someone there during the whole time of the exhibition, which is extremely expensive, or I should have to leave my affairs in the hands of an exhibition agent, who knows nothing about gloves, and probably does not care very much about it beyond getting his fee. If there were a society such as I suggest, the expense of the representation would be reduced to a minimum, and at present that representation is a most important thing to a manufacturer.

4435. The society you suggest would take care that your goods were properly shown and properly considered at that exhibition with not much cost to you?—Yes. If I were a very large manufacturer I could afford to send my own representative. For example, such people as Armstrongs, of course, would have their own representative, but a small manufacturer cannot afford that, and his interests would be very much better looked after by such a society than by an agent.

4436. There are several agents, but you do not think that the agent is quite capable of looking after the various articles which are exhibited?—I think the agents act honestly and fairly as a rule, but in the first place they have no technical knowledge of the various trades.

4437. Not of all trades, perhaps?—They have no technical knowledge of all the trades which they represent. In the second place, their fees become expensive. Then, again, there is a very vicious system which prevails—I do not say universally, but it does prevail to a certain extent—of making their fee dependent on the kind of award a man gets.

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4438. I do not know that we have heard of that before?—I do not say that that prevails universally, but it does prevail to a certain extent on the part of exhibition agents.

4439. Do you mean that if you get a *diplôme d'honneur* you have to pay a high fee for it?—"I will give you £50 for acting as my representative in Ruritania, but if you get me a *diplôme d'honneur* I will give you £100." That is the sort of thing.

4440. Do you know of your own knowledge that that has been done at several exhibitions?—I know that it has been done, but I could not say that it is universal or frequent.

4441. But you have known of cases?—I have known of cases.

4442. In recent exhibitions?—I will not say in recent exhibitions, but in exhibitions which have been held during the last thirty years. You can easily see that that is a system which it is quite possible may exist. There is one point I should like to add: Although I would have the permanent exhibition department a very small one, merely to preserve the continuity and to preserve the traditions—and I think that might be done quite well by the Board of Trade in a, comparatively speaking, inexpensive way—yet I quite recognise that the selection of the gentleman who is to be placed at the head of the staff at any exhibition is a very important matter, and that it would be very important that he should be a man of considerable executive ability and of considerable exhibition experience, and also that he should be a man of good taste.

4443. (*Mr. Malcolm Ramsay.*) Has practically all your time been taken up with one exhibition or another in recent years, or have you any other profession besides that of organising exhibitions?—There have been years in which I have had nothing to do with exhibitions. During that time I have lived, to a certain extent, on my private resources, and I have been a good deal connected with journalism.

4444. I asked that because I wanted to know what was your experience of trade; that comes chiefly through organising exhibitions, does it not?—Exclusively. I have never been connected with any manufacturing trade.

4445. Your opinion, I understand, is that exhibitions are distinctly favourable to the export trade of the country?—I am very much of that opinion.

4446. Do you think they increase the aggregate export trade?—Yes.

4447. You say in your statement that before 1878, I think it was, or at any rate, in the earlier exhibitions, the Government did better than it has done at the more recent ones?—Yes.

4448. Do you think that may be accounted for to a certain extent by the fact that at the earlier exhibitions our foreign commercial rivals were not nearly as formidable as they are now?—They utilised these various exhibitions and we did not. That is one thing. Another thing is that the present King, when he was a much younger man, took a very active part in these exhibitions, and the fact that he was at the head had a very considerable effect in inducing British manufacturers to exhibit. Then you had in Sir Phillip Cunliffe Owen an extremely able man, who was on very excellent terms with all the manufacturers, as well as with all the officials. He managed always to get together a very fine collection of exhibits. Up to 1878 I do not think foreigners realised what exhibitions could do, but in proportion as they began to strengthen we began to weaken. As I said before, Germany was not represented at all in Paris in 1878, for political reasons, and the United States was only represented very poorly. On the other hand, Russia made a very magnificent display, not for commercial, but for political reasons; they were anxious to bring about a good feeling with France, and they did so. What I want to point out really is that as they strengthened, we weakened.

4449. Setting aside the increasing competition of other nations, you think that our organisation has latterly been less effective than it was before?—Yes.

4450. When you were speaking of the French system you instanced your negotiations with a view to an ex-

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hibition at Earl's Court, and you told us, I think, that the Minister of Commerce decided the policy, and it was left to the society to decide the business aspect?—Yes.

4451. Who do you think should decide the business aspect, if we applied that kind of system to England?—If there were such a society, the society. If not, the Board of Trade.

4452. How would you suggest that that society should be composed? Should it consist of representatives of the large manufacturers, and so be an unofficial organisation, that is to say, an organisation not undertaken by Government?—Yes.

4453. Or should it have some official representative upon it, and be a Board of Trade organisation?—The President of the Board of Trade ought to be the nominal head of it. He ought to be what they call the *President d'honneur*, and he ought to know what is going on in the society. He ought to have, probably, some representative to take a part in it. But the society itself should be strengthened, and the good working of it should depend upon its being entirely in the hands of the exhibitors themselves.

4454. Therefore, as soon as any Department of the Government had decided whether it was politically advisable to take part in an exhibition, the matter should then be referred to this society, who would advise as to the practical benefits likely to accrue from it?—Yes. This society would probably say we ought to have a vote of so much money, and then it would be a matter for the Government to decide whether they would give it.

4455. Do you not think that would lead to increased demands on the public exchequer for representation at these exhibitions?—I am rather inclined to think that an additional expenditure would be in many cases very advisable. But the Government would always have the power of saying "No." Another thing is this: By the present system our Government scarcely ever takes part in an exhibition as early as it should do; the thing is always postponed for a very considerable time, and then they only go into it at almost the eleventh hour, when it becomes more expensive.

4456. I think you told the Chairman you considered it would be practicable to get the manufacturers to combine into an organisation of this kind?—I think it would.

4457. Notwithstanding the aloofness which many of them have shown in the case of recent exhibitions?—Yes. I think, if they thought that they or their representatives would have a very large say in the whole organisation and the general policy and the whole working of the exhibition, they would be very much more willing to come in than they are now, when they are entirely under the control of an official who may or may not have sympathy with them. Some officials are extremely sympathetic to exhibitors, other officials are not; but I take it that the officials of a Department like the Board of Trade would be infinitely more likely to be sympathetic to exhibitors, and look after their interests, than the officials of the Foreign Office would be.

4458. May I infer from that that it is your opinion that manufacturers would like to exhibit now, but are deterred from doing so, because they think the organisation is not as perfect as it might be?—That is almost too strong a word to use, "deterred." I think they would be more likely to come in if there was such an organisation as that which I suggest. I do not say that they are deterred, because I should be very sorry to think that any manufacturer did not expect to get full justice and sympathy from the officials; but he would get a more intelligent sympathy, I think, if it were in the hands of such a society as I suggest. And, again, as I want to impress on this Committee, the expenses of his representation would be very much less than they are now.

4459. Do I understand you to think that, taken as a whole, our British manufacturers are less enterprising and less alive to their true interests than their foreign competitors are?—I am sorry to say that I think they are. I think the English manufacturer concentrates all his energies on the production of his article, and I think in that he is not excelled by any other country in the world, but when it comes to selling his article he takes a very back seat indeed. I think English commercial agents, English *commis voyageurs*, are infinitely less able than the same class of men in foreign countries—not in working their own affairs, nor in travelling in Liverpool or Sheffield or Plymouth, but when they go abroad. In the first place, scarcely any of them know anything about foreign languages.

4460. Does that objection apply to exhibitions?—You asked me a question whether I thought English manufacturers were less alive to their interests than other manufacturers. I say yes; not in the production of their goods, in which I think they are not rivalled, but in the sale of them, in which I think they are.

4461. As regards such a matter as exhibiting, do you consider that they are not alive to the true advantages which can be got out of it?—I do not think they are.

4462. Of course, a certain proportion of manufacturers find it a very good thing, and they do go in for exhibiting; for example, Doultons, and the makers of some kinds of machinery, are fully alive to the advantages of exhibiting. But would you say that those who have not gone to exhibitions are not alive to their own interests?—I think they are not alive to their own interests. Take that very firm of Doulton's; Doulton's have been made by exhibitions.

4463. May not Doulton's be a business which has a peculiar adaptability for that particular form of advertisement? The ware is of a kind which can be easily taken abroad, and which rather gains by being shown on a large scale, and therefore can be better advertised by being taken to an exhibition than by being advertised by a commercial traveller?—I do not quite follow that.

4464. I was asking you whether you think that some trades might get a much greater advantage out of advertising in the form of an exhibition than others would?—Yes, certain trades would. In the case of certain trades an exhibition would be very expensive, and would not be so useful as it would in other trades. I scarcely know any trade in which a commercial traveller going round the world could take an efficient number of samples. For instance, take carpets. Supposing a man comes to you with a piece of carpet about the size of this sheet of paper; it produces no effect whatever. On the other hand, if you see at an exhibition a large fullsized carpet, you see at once what the carpet is. I think that although exhibitions are more advantageous to some trades than to others, they are advantageous for all trades. You will see at some of these large international exhibitions that some of the great machinery people and some of the great engineers go to enormous expenses in exhibiting.

4465. I suppose you are generally aware of the amount of the grants that have been given by the Government to various exhibitions?—I am generally aware. I know there was £100,000 granted to the Paris Exhibition of 1900; I know there was £150,000 for St. Louis; and I think that for Chicago the figure was something in the neighbourhood of that.

4466. Is it your view that the Government has spent too little on the whole at exhibitions, or that it has not got the greatest advantage out of the money which has been voted?—I think that the Government might have voted more money with advantage, but I think that it has not been altogether wisely spent. For example, I do not see very much commercial advantage in exhibiting in the United States, but then on the other hand there is a very considerable political advantage to be gained by it.

4467. The political aspect is not one with which we are immediately concerned?—I understand.

4468. (*Chairman.*) We are looking to the commercial aspect now?—Looking at it from the commercial point of view, I should not feel inclined to spend much money upon exhibitions in the United States.

4469. (*Mr. Harris.*) You informed Mr. Ramsay that the foreigners grew stronger as we grew weaker; but do you not think that the explanation of it might be that the English trader felt that he had really got all he could out of exhibitions, and therefore he was dropping them?—I think that that was to a great extent the feeling. I think they thought they had spent a lot of money in advertising themselves, and that they now might rest on their laurels. But I think that is a very unwise policy, and I think everybody who has tried it finds that out. There are certain trades which have been made by publicity and by advertising, and they have to go on with it. If they begin to cease their advertising, their trade ceases in the same ratio. I think that feeling was very strong amongst English

manufacturers some 20 years ago, and they thought that they had an idea that the world was in their hands, and that there was no necessity for them to do very much more.

4470. May I gather that you would meet that by a collective exhibit, as you suggested to the Chairman?—Yes, if I could not get the manufacturers to go in any other way. I am supposing a condition of affairs in which the whole of the exhibits would be in the hands of such a society. Failing such a society, I think I would follow the policy which was pursued recently at St. Louis. I would have a collective exhibit, of which the Government should pay a very considerable proportion of the expense; but if a man had his own exhibit, then he must take it on himself.

4471. In the case of a collective exhibit, would you have the names of the manufacturers composing it displayed?—I think so.

4472. Do you mind telling us what your general impression has been of the show made by Great Britain at exhibitions you have been at lately—was it good or bad?—I would not say good or bad; I would say fair, certainly not good.

4473. It did not satisfy you as a British subject?—No. I have never seen an exhibition for some time past of which one might suppose that an Englishman going to it would say he was proud of the exhibit made by his country.

4474. I take it that the British manufacturer does not exhibit just for national pride?—No, not at all.

4475. You said just now to Mr. Ramsay that the British manufacturer produces for private demand, so to speak, but when he has produced a good article, will you really go on to say that he does not care how it is sold?—I say he does not know how to sell it in foreign countries.

4476. I know you said he does not know how to sell it, but do you mean that he does not care whether it is sold to the very best advantage or not?—He is very anxious that it should be, but he has got rather an idea that that ought to be done by the merchant and not by him. He has got an idea that the sale of his products is not a portion of his business.

4477. Can you cure that by encouraging exhibitions?—You can cure that by inducing manufacturers to go to exhibitions at a greater rate than they do now. As I said before, the large manufacturer says, "I have got as many orders as I can go on with, and I do not care very much to exhibit; I do not care to exhibit merely for the glory of the thing, and the maxim *noblesse oblige* does not apply to me." On the other hand, the small manufacturer who would be very anxious to exhibit is deterred by the expense, for, as I said before, he has to employ an exhibition agent at a very considerable expense to look after his exhibit.

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4478. Supposing Great Britain continues to exhibit, what is the interval which you think it advisable there should be between these international exhibitions?—I think Great Britain ought to appear at all what we may term first-class international exhibitions. Those international exhibitions do not occur more than once every three or four years. For example, there was a large international exhibition in Paris in 1900, there was a large international exhibition at St. Louis in 1904, and there is no large international exhibition on foot now.

4479. Do you think that an interval of four or five years is not making it too frequent to be at all attractive to the exhibitor?—I do not think so, because there are all sorts of new things coming out every four or five years. For example, we had an entirely new revelation some 15 or 20 years ago in cycles; now we have got a similar revelation in motors; and we may have another revelation in aerial navigation—in addition to the improvements which take place in every kind of manufacture. Take agricultural implements; they are constantly being improved.

4480. (*Mr. Malcolm Ramsay.*) You told Mr. Harris that the British exhibit never struck you as more than fair at any exhibition; was that because of the quality of the goods, or because of the quantity and the scale of the exhibit?—Every exhibit was a good one, but the number was small, and they were badly arranged. For example, I recollect in the Paris Exhibition of 1900 going down with an American to the place where there was a large quantity of iron products, and seeing on one side a Swedish exhibit and on the other side an English exhibit. The Swedish exhibit was beautifully arranged and beautifully got up, and everything looked admirable. On the other hand, the Englishman had just dumped down his exhibit in the same way as it had just left the workshop, and there was no attempt made to give any display to it. Anybody going through the place would not fail, as in the case of Verviers and Bradford, to have come to the conclusion that the Swede was a much more important ironmaster than the Englishman.

Mr. WALTER HUNT FELTHAM, called and examined.

4481. (*Chairman.*) What is the name of your firm?—W. H. Feltham and Co.

4482. Of where?—Tooley Street, London, and Southall Street, Manchester. Our principal works are at Manchester.

4483. I understand that you have exhibited at the Paris Exhibition of 1900?—Yes.

4484. What was it that you exhibited?—Cotton bags.

4485. Cotton bags for flour, salt and sugar more especially?—Yes. We were the first firm ever to exhibit such a commodity at any international exhibition.

4486. Then you say in your heads of evidence "also show printing of same for various trades"?—Yes, that was practically to show the printing on the goods, and also what the goods were for.

4487. You say that was a new thing?—It was a new thing as far as exhibiting was concerned. It is a trade that has grown very much during the last 10 to 20 years.

4488. I suppose far more articles are put into bags now than there used to be?—Yes, 50 per cent. more.

4489. You found out a new thing, I suppose, and you simply exploited it?—No, it was not exactly a new thing. It was simply looking after it and adapting ourselves to circumstances and getting other people to fall in with the newer phases of trade.

4490. Do you think you can trace good business from your exhibit at Paris?—I am sure of it—most decidedly.

4491. At home or abroad?—Both—in France and in London as well.

4492. And in other countries?—No. We are rather restricted about that, and it is only to a very few countries that we can go.

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4493. Is that because of the trusts?—Partly; but, for instance, we cannot touch America, because there is a 75 per cent. duty on everything we should send in. Then, in many countries they do not use anything of the kind, and are not likely to.

4494. It depends, I suppose, on the produce?—A great deal. We can do trade with the Australian Colonies, but we are being kicked out there a good deal by the duties; and we can do a little trade with India.

4495. I suppose you have not experienced any actual disadvantage from exhibiting owing to having your goods copied?—Quite the reverse.

4496. Do you approve of the system of awards at an exhibition, I mean the medals, and so on?—I am a little bit independent about that. As far as I can judge, it is practically in the hands of the agents who take up the representation of certain firms.

4497. Did you not have an agent?—We did not. As far as my memory goes, it was 10 guineas for getting a bronze medal, 20 guineas or 15 guineas for getting a silver medal, and about 20 or 30 guineas for getting a gold medal.

4498. That is payment by result?—Yes.

4499. (*Mr. Malcolm Ramsay.*) Is that what they asked you?—That was one of their conditions.

4500. (*Chairman.*) Was that a printed condition?—Yes. I would not have anything to do with that. I went over three times in one week to see the jury. I went over on a certain day when they did not meet. I

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came back and went over again, and altogether I was over there three times in the one week for the purpose of meeting them. Mr. Behrens, of Manchester——

4501. Do you mean Mr. Gustave Behrens or his brother?—I am not quite certain what was his Christian name, but he was on the jury, and owing to my being there and being able to explain, they really pulled the whole of the stand almost out, and had goods taken out from the glass case and taken away, I think. I put down the fact that I got the award to being there personally myself. We had only a very small exhibit, and it was the first time we had ever exhibited, and in such cases, as a rule, you do not get much recognition.

4502. Still, you got a bronze medal, and I suppose you mean to have a silver or a gold medal the next time?—I should hope so, if I exhibited, most decidedly. We should try to excel our last exhibit, and also, of course, with the experience we have had we should try to do better. But it would not be any good for us to exhibit in places like Germany, or in places like Spain or Italy—having regard to my particular trade.

4503. Because there is no demand there for your goods?—There is no demand for them.

4504. Should you say that you have been induced to buy certain goods from seeing processes or goods exhibited?——Yes. I went round the exhibition, and I saw that Singer's, the machinists, were exhibiting certain new forms of fittings for sewing machines. We have them in our works at the present time, and it was seeing them there that made me adopt them.

4505. You would not have heard of them otherwise, probably?—Certainly not; but we saw them working there.

4506. I need not ask you whether you are likely to refrain from exhibiting in future, because I understand that you will exhibit again?—We should at Paris.

4507. But not at Brussels, say?—We should not exhibit at Brussels. One great thing to a small firm exhibiting, as far as my opinion goes, is the initial expense. It is a heavy expense for a small firm to undertake.

4508. Would you not take part in a collective exhibit?—Where?

4509. Would that method of exhibiting help you as regards expense, if an exhibit was got up by the Government or by a Chamber of Commerce?—Yes. I think that would be a very good thing.

4510. But you would want to keep your own name, of course, on your own goods?—Most decidedly we should, and not to sink it just to form the trade exhibit of a certain country. Competition is quite keen enough, and if you are going to do anything at all you have to be all there. It is no good playing second fiddle.

4511. You are in favour of this country taking part in exhibitions as long as they are important ones, I suppose?—Most decidedly. But, as I say in my Heads of Evidence, I think the committee for an exhibition should be composed of as many business men as possible, who would look at it from different business sidelights.

4512. As regards that, did you have anything to do with the Management at Paris?—Nothing at all.

4513. Did you not want them to help you at any time?—I stood on my own feet practically, and I did not go to them. Of course, it was a little bit difficult, as I was not very conversant with the French language, and they would have been a considerable help to me if I had felt inclined to have gone to them; but I got in touch with some friends there, and I was all right.

4514. You did not require their help?—No.

4515. So you have not any experience to give us of what they did?—I think the committee there were always very willing to give us any help that we wanted as exhibitors.

4516. How did you come to exhibit there. You got a circular asking you, I suppose?—No. I heard that such a thing was coming off about two years previously, and I made application, and was called a fool for my pains for doing it.

4517-21. Did you have a man there all the time?—The whole time.

4522. I suppose it was rather expensive to have him at Paris?—That was rather expensive; and then I was going there continually myself.

4523-24. At future times you would exhibit at Paris; but would you exhibit in the colonies—in Australia, for example?—I would, if we had the chance and the opportunity of going over there.

4525. You did not exhibit in New Zealand this last year?—No.

4526. Why not?—Because it is very difficult to appoint anyone who would understand our goods. You want somebody there who can take a man up and give him a price right away, instead of leaving it to be referred home for prices, for the different sizes, qualities, and so on.

4527. You could not have instructed him sufficiently, then?—Not sufficiently for that. Ours is a very peculiar business, and it takes almost a lifetime to learn it before you get hold of all the intricate points or prices, sizes, printings, and so on. For instance, we make one bag, say a 14-lb. bag, in from a dozen to perhaps 20 different sizes—all to contain 14 lbs.

4528. You mean that the sizes would differ according to the specific gravity of the goods inside?—Yes. You want to be up to that. A man comes up and says, "I want a bag to hold 14 lbs. of lead"; another one will say, "I want a bag to hold 14 lbs. of flour"; and another one will say, "I want a bag to hold 14 lbs. of salt"—they all would want different sizes.

4529. (*Mr. Harris.*) Do you mean those particular bags, for instance, that are so commonly used for selling flour in England?—Yes.

4530. (*Chairman.*) I suppose the specific gravity of all flour is about the same, is it not?—No.

4531. Does it vary much?—We should make, I should think, for a 7-lb. bag quite a dozen different sizes, all to contain 7 lbs. of flour.

4532. Generally, you have not had much to do with the organisation, but you think that we ought to have on the committee business men, if possible?—I do, most decidedly.

4533. But you would have a Royal Commission, I suppose?—Yes, most decidedly. I think if the committee were appointed and carried on something like the Board of Trade is being carried on at the present time there would be much good done by it. According to my experience, we want to take up these things on a more business line, and there ought not to be so much red-tapeism about it. If we were to carry on some of our private business in the same way as some of the Government officials do theirs, we should be nowhere—we should not—there is no question of it. Somebody wants half-a-day's holiday, and you have got to get that signed by four or five different people, and it does not concern No. 5 a bit—it has nothing to do with him—yet he has to sign it.

4534. I am glad you rather except the Board of Trade from these censures?—I only go by what one sees. We have to carry on our business in a way that will make it pay, and not so as to lose it.

4535. (*Mr. Harris.*) Your business is evidently rather a peculiar one?—It is a very peculiar one.

4536. Do you think that you would advise all young firms, if I may use the term, to exhibit with a view to pushing their trade?—Yes, I should.

4537. Rather in the way that you did?—Yes.

4538. You make a remark in your *précis* to the effect that many British manufacturers are very slow in moving?—Yes, they are.

4539. Do you think that that is consistent with your idea that you ought to have manufacturers on the committee in order to bustle things along?—No, I would make an exception in certain cases. Some of the slow-goers I would try to wake up; but then slow-going people are not the men, as a rule, who make an old business live at the present time.

4540. Do you not think that those men, in their own business, know their business pretty well, perhaps better than you and I do?—They do in some ways, but they are not willing to adapt themselves to to-day's experience and to-day's methods of business.

4541. Yet you would push them into an exhibition?—No, I would not push them, I would take the smartest men you could get.

4542. You would get the smartest men on to the

committee with a view of pushing the other men into exhibiting their goods?—Exactly.

4543. Do you think that would be a proper application of public money?—I did not look at it from that point of view.

4544. You are aware that as a rule the British Government has given certain grants for exhibitions?—Yes.

4545. It did at Paris?—Yes.

4546. Do you think it is right that the British Government should go on doing that in order to push traders who really ought to wake up of their own accord?—I think it might do good.

4547. To British trade generally?—Yes, I think it might. I can speak of the Paris Exhibition, because we exhibited there. The foreign exhibits in all trades were, in my opinion, very much better than our own exhibits. Of course, there was no one competing against ourselves, but I am talking now of silks and cottons, printed goods and machinery.

4548. Do you mean that you think that the foreign exhibits were better in quality than the British?—Both in quality and in quantity—most decidedly I do.

4549. Would you make a general statement to that effect?—Generally I would say so.

4550. Would you say that of machinery?—Yes, certainly of machinery.

4551. What nations, for instance, are you thinking of?—Germany.

4552. In the quality of her machinery?—Both in the quality and in the quantity. Her electrical machinery was a magnificent exhibit altogether, and so was Austria's. Then if you take silks, in fancy silks of all kinds we had a very poor show in comparison, both as to quality and size.

4553. Are you aware whether, for instance, that electrical machinery was all German made?—No, I could not say that.

4554. You did not inquire whether, perhaps, certain of the goods came from elsewhere?—If I had known this Committee was going to be appointed I might have made more inquiry, but I did not. I simply went there as a casual visitor. But there is no question about it that some of our old manufacturers want waking up. Take, for instance, Sheffield goods. I was talking to a Sheffield man some two or three years ago. Knives that they had been making for many years were being copied by the Americans and by the Germans, but of a cheaper quality; yet the people in Sheffield would not make them. The result was that that trade had to go, and it is very hard when you let a trade go to get it back again. You may afterwards adapt yourselves to the circumstances, and make that particular thing, but then you have got to kick somebody else out, and you cannot always kick those people out after they have been making a trade. You want to be first in the field.

4555. I suppose some of those manufacturers would have said, "We do not want to take up that class of manufacture"?—I do not know.

4556. (*Chairman.*) Are you sure that the duty in America is as high as you told me just now on bags?—It is 75 per cent. on cotton bags. We have not the slightest chance. I know as a fact that the Americans come here and sell in Liverpool to some of our own customers bags that they get 5½d. for—we will use that figure as a relative price—in America, but they dump them down here at 4½d.

4557. I gather that you would not go to America to try and push your trade there?—We cannot.

4558. You cannot do it?—No, we are absolutely out of it altogether.

4559. (*Chairman.*) Do you sell in Canada?—No, the Americans get into Canada.

4560. You have got a preferential tariff there?—But it does not make the slightest difference to us. The Canadians also make their own bags, and they make their own cotton—and they are growing it. We can get a little into South America, but not much.

4561. Not much into South America, do you say?—No, the Americans dump down there very strongly. Somehow or other, our Lancashire people cannot give us the quality that we want. The Americans use a better staple cotton altogether.

4562. (*Mr. Harris.*) Is it that the Lancashire people cannot or will not—referring to what you said just now?—It is due to both.

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4563-4. (*Mr. Waring.*) The trend of your observations just now seemed to be in the direction of the individual rather than on the matter which is before us of international exhibitions—I mean when you were speaking of the lethargy of the ordinary trader?—Yes.

4565. That is the difficulty?—It is the difficulty.

4566. And it is a great difficulty?—Yes.

4567. Of course our particular point is this question of international exhibitions, and I was going to ask you, Is it your point that a more commercial element on the committee which controls an exhibition of that kind would tend to infuse vigour into the organisation, and to initiate a policy that would react upon the traders themselves?—Most decidedly it would.

4568. That is how you would bring in the connection?—Yes, I would. I might emphasise that doubly; it is what we want. We go back to the old story of the red-tapeism. If you can do away with a great deal of the red-tapeism generally, we shall get on, I believe, much better. I do not want to be egotistical in saying "I this" and "I that," but I am only speaking from my own personal experience, and so I cannot help it. I took up this exhibition at Paris on my own responsibility; I carried the whole thing through from beginning to end, so I can only speak from that point of view.

4569. A further point is, Admitting this lethargy is in existence and that we are gradually getting ousted by other countries, that must reflect upon the nation in course of time, must it not?—It must do.

4570. Consequently it is the nation's duty to try to avoid it as much as possible?—Exactly.

4571. By contributing in the way of getting a smarter set of men into the control of matters, and bringing in all the help they can?—That is so.

4572. In England we pride ourselves rather on individuality, do we not?—Yes.

4573. And we have not in the past looked for assistance from the nation?—No. That is what you want to do, I think, more.

4574. Your point is, I think, that there is no need to make things worse by having lethargic commissions and committees as well?—Exactly. I take it that we want to take all these things up from a purely business point of view. Will it pay? No Government wants to give £30,000, £40,000, or £50,000 to a commission or an Exhibition Committee, unless there is going to be a reflection in the trade of the country afterwards.

4575. Or a try to beat it up?—Or a try to beat it up.

4576. Beat it into them in fact?—That is so. I think if you were to ask any of the exhibitors at Paris, they would say that the foreigners were very much better in any particular trade than we were. The exhibitors that I spoke to all had the same opinion.

4577. (*Mr. Malcolm Ramsay.*) Could you define more precisely what you mean by red-tape as regards exhibitions? I take it that one thing it means is delay?—Yes.

4578. Does that apply to the preliminary arrangements for collecting the exhibitors, or to the arrangements at the exhibition itself, or to both?—There seemed to me to be a fair amount of delay in getting the thing settled in the first place. As far as the exhibit itself was concerned, I do not think there was any fault to find at all.

4579. Do you mean that when you got there, you did not have any difficulty?—When we got there we did not find any delay. We sent our exhibit about a week or so beforehand. I arrived there on the Monday morning, I think it was, and there was my stall all taken out ready for me to proceed to work. I think exhibitors too often are themselves to blame, because they do not look after it personally. It is deputed to an agent, and he employs Tom, Dick, and Harry, and he has about twenty other things to look after, so he can only give just a glance here and a glance there, and it is rather left to the workmen to look after it.

4580. You think the red-tape came in more in the preliminary stages in collecting the exhibitors, than actually at the exhibition when the time came for showing the goods?—I do not think there was anything to complain of at the exhibition.

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4581. Of course, you are aware that the organising of an exhibition on the spot is rather a special trade?—It is, practically.

4582. It is a business of its own?—Almost.

4583. Therefore you might get a very smart committee of business men who would not know the ropes at all, as far as arranging the stands and managing the exhibitors and agents was concerned?—Yes, I quite agree with you there. As you say, it is almost a trade by itself; in fact, it grows upon you. It is an experience. You may fail once, but you will profit by that experience, and you will go on a different line next time.

4584. But as a technical job it needs to be done by a person who has been at exhibitions?—If it rested with me to have a say on that, I would say, get a man who is well experienced in exhibitions of all kinds to be one of the committee, so that you could have his opinion and experience.

4585. Taking the preliminary stages, do you think that you could get a committee of business men to give the time required to organise the thing?—Query.

4586. Is that not difficult?—It is a difficulty.

4587. I understand that by a business man you mean somebody who is actually engaged in trade?—And with a big business.

4588. If he had a big business to look after he would have keen competition to face?—Exactly.

4589. Could he afford to give up eighteen months of his time?—No, he could not do that, or else his business would give up him, one or the other.

4590. Is that not a great difficulty in the way of having a committee of business men in your sense?—It would be so, perhaps, but I would say that that might be remedied by getting them to meet together now and again.

4591. But as a matter of fact, is not that what has been done to some extent in the past? The Government have had a Commission, and they have had an executive officer who has not been a business man in your sense, because it meant three years' continuous work to organise the exhibition, to run it at the place, and to wind it up afterwards?—I can see your point.

4592. They have appointed a Royal Commission with a Chief Commissioner, and they have brought in a variety of people, some of whom, as far as I know, have had direct interest in large businesses?—Yes.

4593. Your point would, of course, be met by increasing the proportion of manufacturers who join the Committee?—Exactly.

4594. And by using them as a consultative body?—More as a Consulting Committee, if you could put it in that way, but not more as an actual working committee. I think that you would be remedying a fair amount in that way.

4595. Do you think it would be possible to get the real hard work of collecting the exhibitors and running the exhibition done by men who are actually in business?—I think a fair proportion of them would come forward.

4596. Would you be prepared to give up your time?—I would be prepared to give as much as I could.

4597. How much would that be?—It would depend on what I was called upon to do.

4598. Would you give a day a week—could you afford to do that?—No, I could not—not at the present time. When you have worked up a business from practically nothing, you have to keep on going for some years before it rests on an independent foundation. It is not an international exhibition, but we exhibit at the Bakers' and Grocers' Exhibition at the Agricultural Hall, which pays us undoubtedly, because we come in touch there with the very men that we want to come in touch with. It is a trade exhibition, and we come in personal touch with them, and we can talk to them.

5499. We probably will not differ as to the advantages of a trade exhibition, because that is a purely business thing, and it is confined to one article, and the visitors are people who want the goods that are going to be exhibited there?—Exactly. Here is one result of the Paris Exhibition. I met a city man some two or three years ago whom we had been dealing with and supplying for some two or three years before that—since just after the 1900 Exhibition. He said, "Mr. Feltham, perhaps you would like to know where we first saw your name?" I said, "I should, because I could never understand where you got hold of our name." He said, "At the Paris Exhibition; we happened to be over there, and we saw your name down from Tooley Street, and we said, 'We will go and see Mr. Feltham's exhibit'"—and they went, and I am taking orders from them to-day.

4600. Would you mind telling us whether you have a large bill for advertising generally in the year?—No, it is a very small one, under £25. I used to advertise very much more, but I found practically that the whole of it was thrown away.

4601. Do you do much with travellers?—I have one traveller. We have done more, and I myself have done a great deal of travelling. I have travelled all over the country. You can do more by personal application and speaking to people and writing them and letting them know that you are alive and that you want their business. That is the only way you can carry on a business like ours, where there is competition all the way round. If we were to employ 20 travellers I do not think we should do very much more. The personal element in our business has been principally, I believe, the success of it. But if you advertise in the trade journals your advertisement is among, perhaps, a dozen or twenty pages of advertisements, and people, as a rule do not go wandering over these pages of advertisements.

4602. (*Chairman.*) Do you not advertise in "The Miller"?—We have a little space, about an inch square, every week in "The Miller," and, I think that that is as good an advertisement as I have got. It costs me about 5 guineas a year.

4603. (*Mr. Malcolm Ramsay.*) How often would you be prepared to exhibit in a country where you had an opening, or thought you had one?—That would depend upon the distance.

4604. Would you say every three years?—I should think it would pay every three years. I would go over to Australia or New Zealand if I could go myself—that is, if I could be spared from my business for three or six months—if I could be absolutely out of it altogether, I should not hesitate five minutes about going.

4605. Are you quite prepared to do it even on the present basis?—I should be prepared to do so.

4606. Without any change in the organisation, would you?—No. Personally, I should want to feel that things were being carried out in rather a more businesslike way than they have been.

4607. Supposing there was a more businesslike way of doing things, but it cost you just as much in the future to exhibit as it has done in the past, would you go on exhibiting?—I believe it would pay me to do so.

4608. Without being relieved directly of any expenses, you think that with a proper organisation it would still pay you to exhibit?—It ought to pay really better, because, I believe, it would appeal more to business men generally.

4609. (*Mr. Harris.*) I gather that if you could have spared the time you very likely would have gone to New Zealand?—I should have gone, and I should not have hesitated about it. I am morally convinced that I should have been able to secure some rattling good orders—no question about it.

4610. (*Chairman.*) You have no partner, I suppose?—I have no partner.

FIFTEENTH DAY.

Thursday, 11th April 1907.

PRESENT:

Sir ALFRED E. BATEMAN, K.C.M.G. (*Chairman*).
Mr. A. WILSON FOX, C.B.
Mr. C. A. HARRIS, C.B., C.M.G.
Mr. ALGERNON LAW.
Mr. MALCOLM RAMSAY, C.B.
Sir ISIDORE SPIELMANN.
Mr. U. F. WINTOUR (*Secretary*).

Mr. DAVID HOWARD, called and examined.

4611. (*Chairman.*) I think you have been engaged a long time and in a large way as a wholesale manufacturing chemist, have you not?—I have been at it for fifty years.

4612. Your firm is a very old one, I believe?—It has been established for 108 years. I came into it nearly fifty-one years ago, as a boy.

4613. Your firm have exhibited at several large international exhibitions abroad, I understand?—Yes. We did not exhibit at the Paris Exhibition of 1889, and I think that is the only one of the large ones that we did not exhibit at.

4614. I see from your *précis* that you exhibited in London in 1851 and 1862, in Paris in 1855 and 1867, and then in London in 1885?—Yes.

4615. What exhibition was that; was it one of the South Kensington ones?—Yes, it was; but I forget exactly what it was called.

4616. You have also exhibited at Calcutta in 1884, at Paris again in 1900, and at St. Louis in 1904?—Yes.

4617. Then you say in your *précis* "etc."; what does that mean?—There have been some minor ones, at which we have exhibited.

4618. What is the nature of the goods that you exhibit?—They are pharmaceutical and other chemicals. I believe we are the oldest firm of quinine manufacturers. There is a French firm who have changed their name who are older; but we are the oldest who have kept on under the same name for all those years.

4619. Can you tell us whether you have had any increase in business in foreign countries which you can directly attribute to the exhibition of your goods?—I do not think that there is any increase of business that we can directly attribute to exhibitions. In reference to exhibitions in Paris and in America the tariff question prevents very immediate orders from those countries. Moreover, when one gets to the top of the tree, I suppose all we can hope for is to remain there; we cannot get much higher.

4620. You have a large foreign connection, I suppose?—Yes; and with the Colonies it is very large indeed.

4621. The French tariff is not so very high, I think, is it?—It is just enough to render it practically impossible for us to send anything into France; it just turns the scale. When we sell any goods in Paris it is almost invariably for export from Paris; they hardly ever pass the depôt.

4622. Have you ever experienced any actual disadvantage from exhibiting, through having your goods copied, and so on?—No, I do not think so at all. Chemicals are chemicals, and the only thing that one's competitors can do from the exhibition point of view is to make theirs as good in appearance. You may get a hint from others of new articles which they are exhibiting, but I think we get more than we give.

4623. You have different new ways of making up, surely, have you not?—The actual making up is not generally exhibited. The make-up of chemicals is a point that, as a rule, applies only to pharmacy; the dispenser may have showy ways of sending out his goods. With chemicals, as a rule, it is simply a question of purity, and the package is a very secondary matter.

4624. Do you attach any considerable value, as a means of developing your business, to the awards you have had at exhibitions?—I do. It is a very great advantage to be able to show that one keeps up one's old position, and that if we got the gold medal in London in 1862 we can get the *grand prix* at St. Louis in 1904.

4625. Do you attach copies of these medals to your trade circulars, and that sort of thing?—Yes, we always do.

4626. You have received a large number, I suppose?—I think, including the minor ones, we have ten or eleven, but the medals awarded at the exhibitions mentioned in the *précis* are the only ones we put on our billheads, and so forth.

4627. Have you ever been induced to buy from British or foreign manufacturers to any great extent, in consequence of having seen their goods at exhibitions?—To no extent, except in the case of machinery. For the machinery there is no doubt that a good exhibition is invaluable; you find forms of machinery there which you probably would not otherwise see.

4628. Machinery is what we should expect you to buy. You have found machinery to suit your purpose at those exhibitions then?—Yes; we have bought machinery solely because we saw it at an exhibition.

4629. Besides that, can you give us any definite points on which you have derived instruction or knowledge from visiting exhibitions?—My experience is that the most valuable information one gets is something a little outside one's own line. If you can learn what other people are doing in what seems a very different sort of work, you often learn a very great deal of your own work. To be enabled to keep up in a considerable measure with the progress of other manufacturers is always helpful in one's own work.

4630. Are you thinking now of things quite apart from chemicals and drugs?—Yes. For instance, a metallurgical furnace may teach one a good deal about a chemical furnace, and the machinery for a spinning mill may suggest forms of machinery for very different purposes.

4631. Then altogether your views on exhibitions are that they are helpful in a general way?—Yes, if they are good. An inferior exhibition, I am sure, does harm, and an inferior exhibit is a very great evil.

4632. I think you have usually exhibited at the important exhibitions, and that you have not often refrained from exhibiting at them?—That is so. In 1889 we were short-handed, and we deliberately did not exhibit then, because we were not sure of doing it well enough.

4633. Your not exhibiting then had nothing to do with the special features of that exhibition?—I do not know that our political feelings were particularly moved by the anniversary which that exhibition commemorated, but that would not have prevented our exhibiting.

4634. And your failure to exhibit, I presume, had nothing to do with the fact that the British Government did not take any part in it?—We decided not to

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exhibit, and I really do not know what arrangements were or were not made. On that point I might say that I am quite certain it is not worth exhibiting at any exhibition where there is not joint action; and that means really Government action. The great point, and the one on which we would lay very great stress, is that if an English exhibit is to be really representative of the particular branch of trade which is in question, it must be, to make it effective, a joint exhibit—I mean that a number of manufacturers must agree together so that they shall make the English exhibit in that department an important one, and there must be so much joint action that they shall all have good exhibits. I think that means more or less Government management to get it together. I was not at St. Louis myself, but I heard all about it and worked very hard for it, and I believe the arrangements were most admirable. The chemical trade, largely owing to the Society of Chemical Industry, agreed that they would make a good exhibit.

4635. That was a collective exhibit?—It was a collective exhibit in this sense, that separate exhibits were placed all together.

4636. That is to say, the exhibits of separate firms?—Yes; the exhibits were not mixed. We combined together to make the English chemical exhibit a good one.

4637. And you were satisfied with the effect?—Everyone who was there said the effect was very good, and all that we have heard shows that the effect has been very good.

4638. Did you think that in other sections the British display there was good?—I did not go to St. Louis myself, and I never like to give evidence on what I do not know.

4639. Did you go to Paris in 1900?—No, I did not.

4640. Then you are not able to give us your experience of the other British exhibits at any quite recent exhibition?—No. The last one that I was at was the Paris Exhibition of 1867.

4641. As far as your own industry is concerned, you were well satisfied with the arrangements that were made at St. Louis, I gather?—Yes, they were very good.

4642. You say the Society of Chemical Industry got up a good exhibit; but you got all possible help, I hope, from the Government organisation?—Yes, the Government work was admirably done. It was that which enabled the Society to get our manufacturers to combine together; indeed, no society could have done the work without that unity which came from the co-ordination which the Government brought about.

4643. That brings me to this, that you think that in future large exhibitions there should be a Government Commission, or Government control in some form?—I am sure that that is the only way in which you can do it satisfactorily.

4644. You do not think that a committee of business men by themselves would do as well, then?—I think the ideal committee of business men would govern themselves; but my experience of men is that they are much better governed.

4645. You prefer to have a Royal Commission, with business men on it, I suppose?—I prefer a Royal Commission with business men on it, who can exercise a certain influence in keeping people together and keeping them in their place.

4646. How were you asked to exhibit? Did you receive a circular from the Commission?—I think the history was this. We had a circular, and we put it on the table; then we found that the matter was being taken up, and some of the business members of the Commission strongly urged us to come in to make a good exhibit of British manufactures, saying that it was rather a matter of patriotism. And so we went in for it; but we certainly should never have dreamt of going into it single-handed.

4647. Did it cost you much?—It is very difficult to say. It cost us some hundreds of pounds in actual cash out of pocket.

4648. Can you not give me a nearer figure than that?—No. It cost a great deal more, because it meant the time and thought of all our very best men, besides our own time and thought. It is a very serious matter to make a good exhibit.

4649. Did you have a representative at St. Louis all the time?—We have a representative in America, and he looked after the things. We had not anyone on the spot to explain the exhibit.

4650. Who was there on the spot looking after your exhibit—your agent? Who put up the exhibit for you?—Our American representatives, with the assistance of some of the English committee who were over there.

4651. Those were people from the Commission, I suppose?—Yes. The Americans have to buy things from us, though they do charge us a duty of 35 per cent.

4652. They do buy things of you there, do you say?—Yes; we do a good deal of business, in spite of the tariff, but, of course, that is only in very special things.

4653. They compete with you on the Continent a bit now, do they not?—I do not think they do in chemicals much, except in bromides, as they have cheap sources of bromine; but otherwise they do not.

4654. They require a good deal of bromide themselves, do they not, over there?—Yes, and unfortunately they make more than they want. I think that is the only thing in which we really have any competition from America.

4655. I suppose you have not considered the past organisation of the British sections at exhibitions, except as you came across them?—I think we have never taken part in the organisation of any of them.

4656. Has it occurred to you that it might be an advantage to have any permanent nucleus, from exhibition to exhibition, established in this country?—There the question is—how far is it possible to get a continuous succession of really first-rate exhibitions? If it was to keep up a constant number of rather periodic ones coming too often, the only result would be that it would be impossible for any leading firm to be permanently exhibiting—the expense is so great, and the trouble is so great.

4657. You have told us, I think, that you could not trace any direct benefit from exhibiting?—We could not trace any direct benefit from the actual exhibiting, but then I think that has a good deal to do, as I say, with the tariff. Moreover, chemicals are not very attractive things, and no one would buy chemicals merely for the look of them.

4658. So that you have exhibited partly for the general prestige of the country, I suppose?—For the general prestige of the country, and I would say for our own prestige; one must keep one's position.

4659. Are there new firms in your industry constantly coming on?—Constantly.

4660. From your knowledge, do they generally exhibit?—If it was a very important exhibition, and they exhibited and we did not, that might tend to give the impression that we had fallen out of the race.

4661. But you do not want exhibitions to be too frequent?—No. In the first place, there is no very great novelty in our line of business constantly coming up, and then what you exhibit is rather the general character of your chemicals. A new chemical substance may be invented, but the mere sight of it will not even suggest its use, still less its name. The question of introducing novelties in chemistry is purely a question of literature.

4662. You introduce your novelties through doctors, do you not?—I do not know. That is a very wide subject.

4663. It is, and we will not go into it deeply?—We are at a great disadvantage in England in introducing novelties, firstly, owing to the fact that we may not try limited experiments on animals, and, secondly, *pace* the German doctors, our doctors are very scrupulous about trying experiments on human beings.

4664. Do you mean to say they are too scrupulous, or very scrupulous?—They are very scrupulous. I do not say too scrupulous.

4665. Do you think that in that way there is a danger of our getting behind other nations in the use of new chemicals or new drugs?—In the use of new medicinal chemicals undoubtedly. We follow their lead. Whether we are the worse for not doing otherwise, I would not venture to say; that I must leave to a doctor to say.

4666. I want rather to get out of you whether your goods are not in a somewhat different position to many things that are exhibited at exhibitions?—They are exceedingly different. New machinery, or, taking, for

example, the textile trades, new patterns and new styles, appeal to the eye so immediately.

4667. If a new drug is invented you would not show that at an exhibition, would you?—Certainly not, because it would certainly be patented, and we should not make it.

4668. You would get certain doctors to try it as far as possible, I suppose?—Yes, that is the way it is done, and then, as I say, English doctors do not like it; they are very careful.

4669. You would send a new drug on to the doctors, I suppose?—Yes, and we can get a medical opinion about it where there is not the smallest risk. A doctor will try a new salt of quinine very willingly, because he could not do any great harm with it.

4670. I suppose you are aware that American chemists send a great deal in that way to English doctors for experiments?—I know; and they send it with a great deal of literature, too.

4671. But you do not do that so much?—No, we do not. I am afraid my conscience would not allow me to issue some of those things.

4672. But anyhow, you have got a certain amount of advertisement from these exhibitions?—Yes.

4673. But the exhibit has been an exhibit of known drugs?—Yes. We have given people the idea, which I do not think is unfairly given, that we are in the front rank, and that we can make at least as good things as other people.

4674. (*Mr. Harris.*) I rather gather from your statement to the Chairman that you look upon the collective exhibit as the perfect form of exhibit; will you tell me when you first joined in a collective exhibit at these exhibitions?—If I remember aright, in 1867 there was a somewhat vague attempt made at a collective exhibit.

4675. So far back as that?—Yes; that is to say, all the cases of the English chemists were made of one pattern—there was about that much combination. But there was no effort made to ensure that all the leading firms were exhibiting; that was just left to whether they chose to come in or not.

4676. So you did exhibit in that year in Paris really on your own basis?—There were Commissioners appointed, and they were exceedingly helpful, but there was not that combination among the exhibitors that there has been since.

4677. Now take the Calcutta Exhibition of 1884; was there any more combination in that case?—I do not think there was. As that is one of our best markets, we did not much want anybody else; we were quite content to go on our own there.

4678. Have you gone to any of the Colonies? Did you think, for instance, of going to the present exhibition in New Zealand?—I do not think we have sent anything, but I am not quite sure. We have not unfrequently sent goods to Colonial exhibitions through some leading merchant who is making an exhibit. That is very common. Some leading importer will exhibit a number of goods, and ours among them.

4679. You told the Chairman that as regards the St. Louis Exhibition what you have heard of the exhibit was very good. Did you form any opinion as to the general effect of that upon the chemical trade of this country?—It is very difficult to answer that question definitely. My own opinion—and it is only my own opinion, nothing better—is that it was a distinct benefit to the chemical trade to have been well represented, and that it would have been a considerable damage if it had not been well represented.

4680. That was the occasion when Sir Boverton Redwood was taking an active part in it?—Yes. He took a very leading part, and a very good and able part too. That exhibition probably influenced the Canadian buyers. One cannot exactly trace it, but I am quite certain, knowing what we do now, that if the English manufacturers had not exhibited at St. Louis, and had not done it well, the Canadians would have got the impression that we were behindhand, and so possibly would the South Americans.

4681. Are we to understand from what you said just now that, having once joined in such an exhibit as that, you would not go into an exhibition on your own now?—Unless it was something very exceptional.

4682. Unless you had another Calcutta one?—Calcutta I should have to go to. Really, in a very great exhibition a mere individual exhibit is lost, unless you can combine together so that the whole exhibit is worth looking at.

4683. That would be particularly true of chemicals, I suppose?—Yes, especially so. Unless you can somehow or other attract attention you are lost.

4684. Do you look upon exhibitions generally as things to be encouraged from the point of view merely of education, or also from the point of view of the benefit to the nation's trade?—There one must not look too much to one's own particular industry. I do not think the educational influence of chemical exhibits is much. By the time a student understands enough to understand a chemical exhibit he can educate himself without the help of the exhibition.

4685. I was looking at education in its broader sense?—It is only the business I do that I look to, of course. The educational effect of exhibitions of machinery, to take the extreme, is undoubtedly very great; it is not merely that you see a particular machine which fulfils your particular needs, but you get a general knowledge of what machinery is doing, which often is worth more than the particular machine.

4686. Would you say it is worth more to the individuals of the nation than to the nation as a whole?—Yes, it is worth more to the individuals of the nation—to the thinking ones, at any rate. By an exhibition you learn the general progress more easily than you can possibly learn it in any other way—in machinery especially.

4687. Take your own more particular products; do you still think that the general reaction upon the good of the nation is sufficient to justify the expenditure of Government funds in helping you to exhibit?—I should say that at St. Louis it was, speaking from the general point of view; but unless it is an important exhibition, and unless it is well done, it is not. To encourage an exhibition is a thing I should be rather afraid of.

4688. (*Mr. Malcolm Ramsay.*) Could you tell us more definitely at what intervals you would be prepared to go to a first-class exhibition. Would you consider an interval of five years or ten years sufficient?—I should say five years would be more frequent than I should at all wish to have to do that. Ten years would be a not unreasonable interval, because then you have time for the previous work to be forgotten rather. I am speaking of my own line of business; of course, engineers must speak about their line.

4689. Did you think of going to the smaller Continental exhibitions which were held between 1867 and 1900—say the exhibition at Brussels in 1897, or the exhibition at Antwerp in 1894?—No. There I confess, we had no particular feeling of patriotism, and the Belgian market does not happen to suit us. Had we had a large *clientèle* in Belgium, it would have made the whole difference. It was simply a question of £ s. d.

4690. (*Chairman.*) The Belgian duties are not high, are they?—No; but Belgium is the dumping-ground of every chemist who has anything to sell. I would not say we never did it ourselves.

4691. (*Mr. Malcolm Ramsay.*) I should like to ask you a little more about your view of the part Government should play in connection with exhibitions. Do I rightly understand that you consider the most important point is organisation and co-ordination?—If I may judge—and now I do not pretend to speak as an expert; I merely speak from my own experience—if the Government can regulate and utilise and bring together the mercantile knowledge of individuals, that would be an invaluable help; on the other hand, if it does much more than that, if those who are not in business try to regulate business matters, it does not succeed.

4692. Would you consider that the Government should exercise a right of selection as between manufacturers, and reject certain exhibits and take others?—I am afraid I should be inclined to be governed by my own chances of being in, when considering that question. I think officials should have the power to reject a palpably and unreasonably poor exhibit, or to reject an exhibit which is a flagrant case of puffing an unworthy novelty; but I do not think their power of rejection should go much further than that.

4693. I thought you said just now that unless an exhibit was first-rate, it was better not to have it?—I think the exhibit being first-rate depends upon getting

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such a combination among the leading firms that it must be first-rate.

4694. Would you as an exhibitor expect or as a taxpayer think it right, that Government should give you any direct financial help towards your exhibit?—I do not think the Government ought to give an individual firm financial help.

4695. I am thinking of the individual firm?—I think the Government—if I may venture to express an opinion about what I do not understand—might very well bear the expenses of organisation; but I do not think the Government ought to pay the expenses of the exhibitor.

4696. (*Sir Isidore Spielmann.*) You referred just now to the difficulty you have in introducing new drugs to the market, especially through doctors. I suppose that remark applies to all other firms in the same trade?—Yes, it applies to everybody in England.

4697. I take it that by participating in an international exhibition you practically rely, or in a great measure you rely, on that way of introducing you new drugs?—We have very few new drugs, and we never sell anything under an assumed name. If an article not patented is asked for, if it will pay we can make it. But the particular art of introducing new medicines depends chiefly upon a name which expresses nothing—I believe that is essential for a proprietary name, and if it is neither good Latin nor good Greek, so much the better. That all links in with these experiments on animals and on human beings, and on arrangements with doctors, and on other things which—I do not know if I ought to say it—I think it is very much to the honour of the English medical man that he has very little to do with.

4698. But still, by these international exhibitions you are able to introduce a drug to the attention of the international jury, and you rely upon the jury to give you a valuable opinion in the shape of a high award?—We have never introduced a new drug; that is a thing we have never done. I do not think it is the business of the manufacturing chemist to do it. It is the business of the doctor to ask for what he wants, and if he asks for it he shall have it, provided it is not patented.

4699. But you do attach importance to the awards you get, do you not?—Yes, but I think the awards relate to the quality of the manufacture. Certainly our awards were not for any special novelty, but for the general quality of manufacture.

4700. What awards did you take at the St. Louis Exhibition?—The grand prix.

4701. Do you advertise that fact?—Yes.

4702. That is a distinct advantage to you, I suppose?—Undoubtedly.

4703. If you had not participated in the St. Louis Exhibition, and another competing firm had taken the grand prix, I suppose that would have done you injury in your business?—I think it would. It was an exhibition of sufficient importance for people to notice the absence of an exhibitor. Might I say it is exceedingly important that in our case the jury should be men of rather special knowledge—apart from their being men of the highest character. That is a point on which I certainly think the independence of the Government officials is very important; they can judge whether the names recommended to them on the evidence given are the names of men whose awards will carry weight.

4704. At the exhibitions you have mentioned here, I think the organisation has been, in most cases, under Royal Commissions?—Yes, I think it always has.

4705. Have you ever exhibited under the organisation of the London Chamber of Commerce?—We have never exhibited at any of the exhibitions where there was not a Royal Commission, so far as I know, except it be Calcutta or some of these minor exhibitions which I have not put down in my *précis*. I do not remember about Calcutta.

4706. (*Mr. Algernon Law.*) Did you exhibit at Milan?—No, we did not. We consulted our Italian agents, and they said that pharmacy was not arts or science. I think that is as near as I can give you what our agents said.

4707. (*Mr. Wilson Fox.*) Do you show apparatus and plant in addition to chemicals?—No, we do not.

4708. I see in your *précis* you say, "The only immediate influence of exhibitions on our purchases has generally been in the matter of apparatus and plant"?—It is active, not passive there.

4709. Therefore you have rather spent money on going to exhibitions than got any back?—As far as the immediate result goes, yes. There is no doubt it has cost us a lot of money.

4710. But you could have bought apparatus and plant without showing your own goods, could you not?—If we had been visitors we might have done all that.

4711. Your exhibits, I suppose, are really only interesting to experts?—Absolutely so. Questions of purity were gone into very carefully by the jurors. They experimented and had independent tests, and they took infinite pains. Take what is certainly the oldest thing which we are well known for, that is quinine. If you were to exhibit it in this sun for a week it would become brown. Therefore the mere appearance of a chemical does not tempt people.

4712. That being so, would you say that the members of the trade with which you are associated are on the whole not likely to come forward to exhibit their manufactures very frequently?—I think they will all feel, as I do, that there is nothing much to be gained by that.

4713. Would you also find that it would be difficult to get many of them to exhibit? I have heard what you have said, and I know your opinion; would that be the opinion of your fellow-manufacturers?—Having done a good deal to put pressure on other manufacturers to exhibit at St. Louis, I know that a great many of them—and some of the best—were very loth indeed. They wanted a good deal of pressure to be got to exhibit at all.

4714. That is exactly what I wanted to get from you, because you rather suggested that for the good of the country, and from motives of patriotism, manufacturers situated as you are may be induced to exhibit, and that not from the business point of view as far as you are aware?—Except in that way as showing they were keeping at the top.

4715. Do I understand that to any extent you show with the object of increasing or maintaining an export trade?—Our export trade is what we are most anxious about, because England is pretty well saturated with at least as much medicine as is good for it—perhaps more.

4716. And the doctors are more enterprising abroad, I understand?—In new countries there is always a chance of turning somebody else out.

4717. In what other way besides exhibitions do you bring your goods to the notice of foreign countries? Do you employ travellers?—We employ agents.

4718. Are the agents fixed in certain places, or are they men who travel in any way?—We have tried travellers, but on the whole a really good agent who knows all the buyers is better than a traveller.

4719. I do not want to ask you to tell us any secrets about your business, but do you have many agents abroad?—We have agents in India, we have agents in Italy, we have agents in Canada, and we have agents in Constantinople; then we have men who are our special correspondents—I do not know whether you would dignify them with the name of agents—in a dozen other places.

4720. I have asked that question in order to ask another: Do you show in countries where you already have agents?—Yes, I should say rather where we have agents than where we have not.

4721. Why is that?—It helps the agent. We did not show in Italy because our agent said he did not think it would help him. That was the only reason we had.

4722. (*Mr. Harris.*) In referring to the jury just now, did I understand you rightly to suggest that if they were officials you could rely upon them better?—I am afraid I did not make myself clear. I was referring to an official selection of the jury—that is to say, not merely a committee appointing themselves, but that the Government Commission should exercise a wise discretion as to whom they would take on the jury.

4723. The jury is usually appointed, is it not, by the Commission of the country in which the exhibition is held?—I am not sure. I have known jurors, but I was never one, so I do not know exactly how they are appointed.

4724. Your suggestion is, then, that you would like to have a certain official control, in order to ensure sound jurymen being selected?—Yes, because it wants a very judicial mind to perform their duties properly.

4725. (*Chairman.*) I suppose there would be a difficulty from time to time in getting jurors for your manufacturers who are not competitors?—A juror is *hors concours*, and that is as good as getting a prize.

4726. (*Mr. Algernon Law.*) Were those who were reluctant to exhibit at St. Louis converted to the practice by their experience? Did you hear anything from them afterwards?—I heard no dissatisfaction with the particular firms I am thinking of who got the *grand prix*.

4727. (*Sir Isidore Spielmann.*) You are strongly in favour of collective exhibits, I gather?—Very strongly.

4728. Would you equally participate, on your own account, if they were not collective?—It would want a very strong case to make us exhibit at all if it were not a collective exhibit. If chemical manufacturers did not go in all together, we should not go in by ourselves.

4729. (*Mr. Wilson Fox.*) In your particular industry it would be very difficult to get up a good exhibit unless it were a collective exhibit, I understand?—It is infinitely more interesting when you have a good collective exhibit.

4730. Among your people it would be very difficult to get up a representative show without the exhibit being collective, would it not; and without some pressure being brought to bear upon the leading men in the trade to show?—It would be apt to degenerate into a number of interesting exhibits of new things and new firms, but not sufficiently telling to create much attention or to get people to come to look at them.

4731. (*Chairman.*) Should you object to patent medicines, like Pink Pills for Pale People, being exhibited in your collective exhibit?—I should object to it extremely, because I am thankful to say we have never sold anything under a name that did not describe it.

4732. You were not at St. Louis, and therefore you do not know whether such patent exhibits as Pink Pills and so on, were exhibited in the chemical section?—If they were, the members of the committee who induced us to go kept it very secret. I do not think they were.

4733. Was it understood that there should not be that class of exhibit?—Most distinctly. That is not chemistry. *Mr. D Howard.* 11 April 1907.

4734. (*Mr. Malcolm Ramsay.*) You were speaking just now about the part that business men should take in the organisation, and I understood you to think that they might be associated with the Royal Commission rather in an advisory capacity; is that so?—I do not quite know how it was worked at St. Louis, but it was worked very well there.

4735. There might be particular points referred to them, and they might attend occasional meetings of the Commission; would that be so?—I can only say that it certainly worked very well at St. Louis.

4736. (*Mr. Harris.*) So you think St. Louis was a counsel of perfection?—I do not say quite that, but it was exceedingly good.

4737. (*Mr. Malcolm Ramsay.*) I suppose the ordinary business man, by which I mean a man who is actively engaged in looking after a business of his own, has not much time to spare for taking an active part in organising an exhibition?—In proportion as he is worth having in his own business, it is difficult to get anyone else to replace him; and therefore it is, I suppose, that he is wanted everywhere else.

4738. (*Chairman.*) We have had from several witnesses their opinion as to whether they prefer exhibiting by classes or by countries; would it make any difference to you whether you had your exhibit in contiguity with similar goods from other countries, or whether you had it in one great British section?—Personally, I should not in the least mind being pitted against a foreigner, either as a class or as a country; but I think from the point of view of general business it is better to keep the countries separate.

4739. And you would like to keep the countries separate?—I think so. I think it creates more interest, and it puts in a rather wider rivalry, which is a good thing.

4740. You would be in favour of having a great exhibit for the whole of a country?—Yes.

Mr. Francis A. Darton, called and examined.

4741. (*Chairman.*) What is the name of your firm?—F. Darton and Co. *Mr. F. A. Darton.*

4742. Do you carry on business in London?—Yes.

4743. What is your business?—Scientific instrument makers.

4744. You have exhibited at several great exhibitions in recent years, I understand?—Yes.

4745. When did you exhibit in Paris—in 1900?—No, not in 1900. I think it was in 1878; at any rate, it was at the time when Sir Philip Cunliffe Owen was the British Commissioner.

4746. Then you exhibited at Chicago in 1893?—Yes, and I was there all the time.

4747. At Brussels in 1897, at St. Louis in 1904, at Liège in 1905, and at Milan last year?—Yes.

4748. The goods that you exhibited were chiefly self-recording barometers and thermometers, aneroid and mercurial barometers, clinical and other thermometers, microscopes, electric motors and dynamos, levels, compasses, clinometers, and specific gravity instruments?—Yes.

4749. Have you had any increase of business in foreign countries which you can attribute to exhibiting?—Yes, I have had some, certainly. In the case of the American exhibition some departments of the American Government bought of me.

4750. Can you trace any increase of business from Milan?—From Milan I have had a few small orders, but very few as yet.

4751. Have you suffered any disadvantage from having the goods that you have exhibited at exhibitions copied?—No, I do not think I have had any cause to complain on that score.

4752. Do you attach value, as a means of developing your business, to the awards that you have had at exhibitions?—Yes, certainly.

4753. You have had high awards, I suppose?—Yes. It does not matter how good your stuff is—I am speaking of manufacturers now—but unless you get some awards you never get to the front in our line.

4754. Have you been induced to buy anything that has been of use to you by seeing it at an exhibition?—Yes, I have. When I have seen instruments that have interested me I have ordered samples of them.

4755. Are there any other points in which you have derived instruction in matters of manufacture?—Yes, certainly.

4756. You have refrained, you say from exhibiting at several exhibitions of late years; the Paris Exhibition of 1900, for instance?—In that case I applied for space, and they told me that they had no room.

4757. Was that a case of applying too late?—No, I applied in very good time.

4758. Did you want a great deal of room?—No.

4759. You have got no very large machinery or anything like that to exhibit, have you?—No. My instruments are not large instruments; they are more self-recording barometers and things of that sort.

4760. About what space would you want?—I could do with a space about as big as the window of this room. When I exhibited at Chicago I had a much larger space. I had two cases with a centre-case outside a small room. But that is not a necessity for me when exhibiting, and at the last exhibition, at Milan, I only sent half that amount.

4761. Have you found exhibiting to be expensive?——Milan was one of the cheapest exhibitions I have been at. Chicago was a miserable fiasco as regards expenses; it cost me a lot of money.

4762. Why was it so expensive?—It was expensive to get the goods out there, and then American labour is a good deal dearer than English labour. At the end of the exhibition we were waiting some weeks to get our things through the Customs, and getting our packing-cases in. Before that occurred they cut off all our water supply and all our light, and as it was quite six inches deep in snow it was dangerous to work in the

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building at that time putting our goods away, because the snow broke in the roof, and large sheets of glass came down occasionally.

4763. Was that the fault of the organisation?—The American buildings were very rough in comparison with European buildings. It was beautifully designed, but the interiors of the exhibition buildings were left as rough as they possibly could be. I had several of my best thermometers spoilt by the heat there. I took out some very delicate standard thermometers, and the heat in the gallery where we were placed was so tremendous that it burst them.

4764. It was very hot in Chicago, I remember, at that time?—Yes. We knew that was coming, but unfortunately when we complained about it, we got nothing seen to. They put the blinds on the other side of the Manufacturers' Building, where they were not wanted; and I had eventually—it was so very hot—to take out one or two of the sheets of glass myself in the large windows, and to rig up a ventilator to let a little air in.

4765. Did you complain to the British Commission about it?—Yes, I complained until I was tired.

4766. But they could not do anything for you?—They neglected us to a great extent all the way through.

4767. What was your experience at St. Louis; was that better?—I did not go to St. Louis. That was entrusted to the Government. They got me to send a few instruments, and they took all the onus upon themselves; they even sent a gentleman round, experienced in scientific matters, to coach himself up as to our exhibits.

4768. From whom did he come?—He came from the British Commission.

4769. From the Royal Commission, do you mean?—Yes. He was a man who was well up to his work, too; he was an intelligent man.

4770. You found that better?—Much better. I can assure you. I noticed that in a marked degree among the French and Germans, even in Chicago. They had that system right through, and it is the proper system, in my opinion, for running exhibitions. They were all united together. When I was there I met a man in the German scientific section whom I know well—he was a German manufacturer of induction coils. He was deputed by the German Government to take charge of the whole of the scientific section, and if a gentleman wanted to inquire about any particular exhibit, he walked up to this man, and this man found him all the catalogues and gave him all the necessary explanations about it, and understood what he was talking about.

4771. He, in fact, represented the exhibitors to a great extent?—Yes, and he represented himself also; but he was paid by the German Government.

4772. So he represented the German Government?—He was appointed by the German Government at a salary. I do not suppose in a case of that sort that it cost very much, because he would have been only too anxious to go out to show his own stuff.

4773. He was one of the exhibitors, was he?—He was one of the exhibitors as well.

4774. Your trade did not send a collective exhibit, did it?—No.

4775. You did not join with other firms?—No, but all the scientific instrument makers were in the gallery. There were only four of us exhibiting.

4776. So that your manufacturers were together, and side by side?—They were close to each other. You can understand that to be in a gallery in that particular position was about the worst position that a scientific instrument maker could go to. The Swiss had all their scientific instruments on the ground floor. Their exhibit was the centre of attraction, and I may say that practically the whole of their scientific exhibits were sold. The Swiss manufacturers reaped enormous benefits by having them all in that central portion of the building. The principal part of our British exhibits on the ground floor was taken up mainly by such people as pipe manufacturers and soap manufacturers and somebody's patent scents. I think they held us up to ridicule. I know the other nations were laughing at it, to think that this was a specimen of what Englishmen made.

4777. (*Mr. Wilson Fox.*) In fact, it was badly managed?—It was. It seemed a kind of gigantic advertisement. What is there in a soap, what is there in scent, and in all those sort of things? That does not appeal to any scientific or educated man.

4778. (*Chairman.*) Your point is that your instruments were put in a position quite unfitted for them owing to the temperature?—Yes. I spoke to Sir Henry Trueman Wood about it, and he quite agreed with me. He said: "I quite see you did not come hundreds of miles on purpose to be placed up in this poky corner." He went down and spoke to Mr. Lloyd about it, but Mr. Lloyd vetoed it immediately.

4779. That is, he would not make any change?—No, he would not.

4780. Who was the head of the British Commission at that time?—Sir Henry Trueman Wood.

4781. And he was vetoed, you say, by Mr. Lloyd?—He did not take any active part in it really; in fact, I did not see him a dozen times the whole time I was there. He is a very scientific man, and he is well up in science; but then a man may be a scientific man and have no business capacity.

4782. That was at Chicago; but you did not hear of anything of that sort at St. Louis, I think?—No.

4783. The St. Louis Exhibition was much better managed?—I think it was. Everyone I spoke to seemed well satisfied, or, at any rate, better satisfied with the results there.

4784. Do you think that a Royal Commission should manage these exhibitions?—I think it would be very much better if it did. I suppose you see quite as well as I do that in arranging a business of that description it is very difficult to pick good men to take on twelve months' work.

4785. You mean people from the outside who have not had work of that kind before?—Yes. It is like a business; you get all the people that are not much good. I think probably that had you had some good business man from some of our permanent Government Departments it would have been well worth while to have spared him for the twelve months.

4786. You seem to be rather in favour of having a small permanent nucleus between exhibition and exhibition?—Something of that kind, I think, there should be. Another thing you want is that the Commissioner himself should be a man with a good deal of tact. You can easily offend foreign susceptibilities if you are not very careful how you handle them. We felt it so much out at Chicago that we exhibitors on our own account gave the Colonial Commissioners a smoking concert. We formed a British Exhibitors' Club there, and I was the treasurer. We held it in the Manufacturers' Building; and we invited the Commissioners from Australia, New Zealand, and Canada all up one night at our own expense, and gave them a little entertainment. I think that sort of thing helps towards friendly feeling. I think one of the most satisfactory exhibitions I ever exhibited at for its size was the Brussels Exhibition.

4787. That was in 1897?—Yes. That was well managed.

4788. It was well managed, you say?—Yes, capitally. They had not any too much staff, but they had just sufficient staff to do the thing properly. When the Lord Mayor went round, they were so short of hands that I took charge of the British Commission offices and looked after the mace and all the rest while they went parading round. We had only two big City policemen, who were very tactful men, and a few sailors in British uniform. It was managed economically and well. I will tell you what Mr. Dredge did, which I think was a very good thing. A lot of the English jury were there some time before; they were personal friends of his, and they went round with the French jury to explain the beauties of some of the instruments exhibited.

4789. You are speaking now of the international jury?—Yes. They really pulled them a good deal by the nose—I am only speaking as an exhibitor. In Milan lately the German Government almost held a pistol at the heads of the exhibition authorities, and told them that they expected such and such awards for the different exhibitors, and they got them.

4790. Have you not been properly treated in regard to awards?—Yes. I do not say anything about that, and I am not speaking about that. As far as I know I think I have been served very well.

4791. What awards did you get at the Chicago Exhibition, which we have heard so much about?—At

Chicago I got five of the highest awards. They only gave bronze medals there, and I got them in five different sections. A curious thing happened at Brussels. I got the *grand prix*.

4792. Why was that curious?—I was going to tell you. When the report came down, Mr. Dredge showed it to me as an exhibitor, and said "You will like to see it, Mr. Darton; you have won the *grand prix*." Twenty-four hours afterwards I got notice that I had not received the *grand prix*, but that I had received two gold medals, and Ross, of Bond Street, had got the *grand prix*. Ross had an agent on the spot—some lace agent, or something like that, acted as his agent—and there is no doubt got at the other jury over it. Mr. Dredge tried to fight it, but they would not re-open the subject. I have got the list sent down from the jury somewhere to-day, where my name is in print as receiver of the *grand prix*.

4793. That is not a question of the Germans, or any other nation, taking your *grand prix*, because it was given to somebody else of your own nationality?—Yes. That was through no fault on the part of our representatives; it was the fault of the jury.

4794. (*Sir Isidore Spielmann.*) You do not think it was a printer's error, do you?—No. I knew Mr. Dredge very well, and as the British Commissioner he came to me and said, "I am very glad to congratulate you, Mr. Darton, you have got the *grand prix*." He said, "I will send you down the report which I have just received from the international jury." It was a printed book with my name in it.

4795. (*Chairman.*) On the general question of organisation, you are in favour of a Royal Commission with business men on it, I suppose?—I think so. That would be the way to do it. If properly done, I think you could economise, at any rate you would not waste much money. Another thing you would have to look forward to is that when you take a man on temporarily for these sort of jobs, it is that man's interest, if he is an employee, to hang on as long as he can. Look at the St. Louis Exhibition; they were down in Westminster here for months and months after the thing was finished. An ordinary business man would say, "Now, I will clear this matter up, and we will get the thing through as soon as possible."

4796. In fact, you think that Commission was carried on longer than it should have been?—That was my idea. I think all these things should be managed in a businesslike way. I look at it as a business man. If I were running it as a part of my own business I would not allow it, and I do not think we ought to allow it in Government affairs.

4797. How often are you prepared to have these big exhibitions, and to take part in them?—I do not believe in having too many. Personally I think that when they began to give annual exhibitions over here it simmered down to nothing at all. When they had the great exhibitions, they certainly carried much more weight than the annual exhibitions they had for some years over here.

4798. Do you think once in five years would be enough?—I think once in 10 or 11 years is enough. I do not believe in having them so often.

4799. Would you still have your permanent organisation going on?—In a matter of that sort, is there not some Department of the Government from which they could detach certain men that they knew were good business men and men of business capacity filling their places temporarily while they were away?

4800. That is what I want to get from you: you think that could possibly be done from some Government office?—Yes, I think so. I will tell you where we found woeful trouble always in exhibitions—that is, in getting your goods. At Paris in 1878 two of us, myself and a man, were there for over a week trying to find our cases. We ought to have been back here before that.

4801. (*Mr. Malcolm Ramsay.*) Do you mean the packing-cases containing your goods?—Yes.

4802. (*Chairman.*) That is 30 years ago; could you give us any more recent instance?—Even in Chicago it was the same. I had to go myself to find my cases. I got no help from our own Commission. I was referred to different men—"Go to so-and-so; go to so-and-so." The exhibition ground at Chicago was miles across, and you got rather disgusted with that. After it had been on for about a week, I set to work and went up to Mr. George, the Secretary of the American Commission of Liberal Arts. He was a Scotsman, and a very smart man. He said, "I am very sorry your goods have not turned up; if you come up to me to-morrow morning at 10 o'clock I won't leave you till I have found them"—and he did find them. I went up to him at 10 o'clock the next morning, and they were on my stand in less than an hour—the whole lot.

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4803. Had you paid for the transport of those goods?—The American Commissioner saw to that, when they once arrived. I paid for the transport of my goods over to America right up to the Exhibition.

4804. You had paid for them up to the Exhibition?—Yes.

4805. What else did you pay for?—I paid for their return, and I paid for the Customs business; we had to get clear of the Customs.

4806. You did not pay Customs duties, did you?—I took some out that I had to pay duty on.

4807. You paid duty on what you sold?—Yes, I paid 60 per cent.

4808. But you did not pay duty on all that you took?—No, except this, that there were some expenses in the Customs in clearing them out. After the Exhibition was shut up, I was up at that office about a fortnight getting my goods through, going about from pillar to post.

4809. (*Mr. Wilson Fox.*) I suppose if these international exhibitions were held often, exhibitors here would cease sending out such good exhibits, or at any rate they would not take the trouble to get up such a good exhibit every year as they would every 10 years, say?—I am sure of that. Your mind cannot keep pace with it.

4810. Therefore if annual or biennial exhibitions took place, in which Great Britain participated, you would get an inferior class of British exhibits shown?—Yes.

4811. Which would do perhaps some damage to British credit abroad?—I think so.

4812. Apart from exhibitions, how do you push your trade abroad—what steps do you take?—Mostly by price lists mailed to different firms abroad.

4813. By sending price lists to individuals?—To people who we know will use our stuff. We are wholesale people.

4814. By sending price lists to individual retail people on the Continent?—Yes.

4815. I do not mean to private individual purchasers, but to retail traders?—To shopkeepers, traders, and people of that sort.

4816. Do you not use travellers or agents?—Yes. We travel in Belgium and some parts of France, and I am going to send a man off at the end of this week to Switzerland.

4817. Do you select particular countries?—I do not select any special countries. I know pretty well where my goods go. I see that when I am abroad myself. When I am on the Continent, I always keep my eyes open to see what is going on, and if I think a thing is likely to take over there, and it is of English make, I can soon put some in.

4818. You have sent your goods twice to American exhibitions, I understand?—Yes.

4819. You were not afraid of the tariff there?—No, and I will tell you why. We are in a very fortunate position. It is probably not known to most people, but we scientific-instrument makers have a certain advantage there. If, for instance, I make a very high-class instrument, say a standard barometer, or anything of that sort, a professor at an American scientific institution can order one from me, and he can go before a magistrate and take his affidavit to the effect that it is for scientific purposes, and then he gets it in duty free. That makes a considerable difference.

4820. (*Chairman.*) Are there many institutions that can do that?—It is done all over the United States; it is in connection with education.

4821. (*Mr. Wilson Fox.*) Were a good many of your things sold to institutions?—Yes. Professor Hoag bought several of me for the Geological Survey.

4822. Is this sale to institutions the main reason why you were able to show in America?—Yes. The Americans like English work, and a scientific institution which can get its goods in duty free makes a point of getting English instruments. You find all the professors, when they come across here, are going

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round the different centres of science to find out anything new.

4823. Apart from that sale to these scientific institutions, do you find that exhibiting in America did you any good in pushing your trade there?—It has.

4824. Notwithstanding the tariff?—Notwithstanding the tariff; but the tariff, no doubt, is extremely injurious to us.

4825. Still, it is worth your while to show and send goods there?—Yes.

4826. Is it a costly thing to send your goods to an exhibition?—Yes.

4827. I understood that your exhibit was rather a small one in size?—It is small, but the instruments are very delicate. Being such delicate instruments, that is why we thought we ought to have been shown, at any rate, a little more consideration than an ordinary soap or candle manufacturer.

4828. Who was sent in charge of them, and who looked after them?—At St. Louis?

4829. Or at any of these exhibitions?—At St. Louis I sent them under the charge of the Government, and they paid all the expenses. When I went to Chicago, I stopped there the whole time myself.

4830. That was an expensive thing to do?—It was, but if my exhibit had been in a good position, I should not have regretted it.

4831. (*Mr. Algernon Law.*) Have you made any sales in Canada as the result of exhibiting at Chicago and St. Louis, do you think?—I have had some Canadian trade since, which I can trace to Canadians coming to me there.

4832. With regard to the refusal to receive your exhibits at Paris, did you make any protest? How soon did you apply, because it does seem rather an extraordinary thing?—They sent me papers, and I filled them in for space, but I heard nothing—I am only speaking from memory now. I give them notice about the space that I should require. Then some notice appeared in the papers to say that so-and-so would be the last day when they could receive applications. I went then to the Commission—in Scotland Yard I think it was—and I saw Mr. Lloyd there. He said, "I am very sorry Mr. Darton, but we are full up, and we have no room whatever; we cannot take you."

4833. Did you not make any protest on receiving this reply?—I was rather half-hearted about it, and I did not much care. That is the real truth of it. I do not think the last French exhibition was a very successful one.

4834. Did many other instrument makers show?—Not many. The French had a very fine exhibition at Paris—of course, they would; I mean in our particular line.

4835. I was thinking of your English fellow-manufacturers?—The English manufacturers did not have much show there; there were very few of them.

4836. Have you anything special to say about the management of Liège or of Milan on the part of British organising authorities?—Yes. Liège was badly managed.

4837. What about Milan?—Milan, I think, went very nicely indeed; everything seemed to be very satisfactory. I did not visit Milan myself; I started to get there, but I found the heat so great that I turned back.

4838. Did no one representing you go there?—No. Mr. Hillman, who had done some little things for me before, acted as my agent there, and he did, as far as I could see, as well as I could; he worked very hard for me.

4839. Have you sent any thermometers, or anything of that sort to Germany?—Yes, I have, but not very many. We are not anxious—in fact, we are rather chary of sending them to Germany.

4840. In your *précis* you say, "Those instruments which I have had copied by German makers have been copied from patterns purchased here in London"?—Yes, that is right enough.

4841. Were you one of those who suffered by the imitation of the Physical Laboratory's test-mark on some thermometers that were sent out to Argentina?—I could not tell you.

4842. There were some thermometers, which were traced to Germany, that were sent to Argentina with the Kew mark on them?—I have had thermometers brought into my establishment with my name on, which were not of my make.

4843. Have you had your thermometers tested by the Physical Laboratory?—I send plenty of them down to the Kew Observatory.

4844. Have you ever found those imitated?—I have never found them imitate the "K.O."

4845. They have done so, as a fact?—Have they? They have imitated my electric motors; they have got them up in the same way, and put the same word outside, giving them the same name, and then sent them over here in large quantities.

4846. (*Sir Isidore Spielmann.*) You have participated in six exhibitions, I see?—I think so.

4847. At which of them do you consider the British section was best managed?—Personally, I think the Brussels Exhibition was the best thing I have ever known. I cannot speak about the last exhibition at Milan, because I was not there. That was, as far as I can say, very well managed.

4848. You are referring specially to your section?—Yes.

4849. You did not concern yourself much, I suppose, about the other sections?—No, I did not.

4850. When you speak of the good management of the Brussels Exhibition of 1897, you refer specially to your own section?—Yes. It was not a big section, and I saw the whole of the section; and every exhibitor I spoke to seemed well pleased with the management That is a great deal to go by. When you are over at an exhibition like that, you get fairly friendly with all the other exhibitors.

4851. At which of the exhibitions do you consider the British section was worst managed or badly managed?—I think Chicago, without exception.

4852. I think you also said Liège, did you not?—Liège was badly managed.

4853. You referred to an exhibitor's agent whom you employed; have you any experience of any other agent?—Yes. One thing that the British exhibitors should be very careful of is the choice of the man they get hold of as their agent. There is another man besides Mr. Hillman that I know very well. That is Mr. Arthur Day, who is out in New Zealand now. He is a very honourable man.

4854. On the whole, is your opinion of exhibitors' agents favourable?—It is, of those two I have mentioned; but there are a great many who know nothing about the stuff they handle and who trouble less. If they know that the exhibitor is over here in England, they take his money, charge him big prices—about double what it costs them—for packing-cases and other things, and rob him through thick and thin. Some of these semi-carriers, and men of that sort—shipping agents—say they will be agents for you; but they know nothing about the stuff and they care less. That is where an exhibitor should be very careful. Those two agents I have mentioned I am personally acquainted with, and I would trust them just the same as I would my own brother. I feel sure they are both honest men, and men of business capacity too.

4855. (*Mr. Malcolm Ramsay.*) You told the Chairman of certain orders that you had booked at exhibitions; I suppose you follow up those orders, or that development of trade, after the exhibition, do you?—Yes; we have been in correspondence with them ever since. I have got customers on my books who have been on them ever since.

4856. So that the orders that you have got at exhibitions have led to permanent developments of trade?—Yes. In the same way in travelling, we do not look upon our first orders to pay our expenses.

4857. I understand you to think, looking at it broadly, that the money you have spent on exhibitions has been worth the while?—I think so.

4858. You have got enough out of it, and it has not been thrown away?—I look upon it as a valuable asset. It is like sinking so much in your business for goodwill. I might call your attention to one fact which is lost sight of by a great many people. Through exhibiting at some of those Continental exhibitions we get looked upon as good men over there by the optician. He is a man of some importance. The optician over there does not know much about who's who, and if he gets out a good thing he brings it to you in the first instance;

and so you get the benefit of it in that way—you get the first pull over the others.

4859. I do not want to inquire into the details of your business, but would you mind telling us whether the money that you have spent on exhibitions bears any large proportion to the money that you spend on agents and travellers?—It does not come to anything like the amount I spend on travellers.

4860. Then it is not very much compared with what you spend in that direction?—No.

4861. As far as I can gather, you do not grudge it?—No; but I think there should be a proper system. What you want to do is rather to encourage the scientific man. You want to see the scientific man come and reap the benefit of his brains. You find that sometimes the expenses of an exhibition prevent a really clever man showing anything. Do not forget that. There are a great many people at exhibitions who make a very big show of things, but who perhaps are not the makers at all. What you want to do is to encourage the actual producer of the thing to come forward.

4862. (*Mr. Harris.*) I should like to press you upon one or two points in your evidence. Did I understand you to say that unless you get some awards it is not much good going on with the business?—No, I do not go so far as to say that. I mean to say that unless you get some awards you do not score with big people, with the Government Departments and with bodies of that sort. I am only speaking now of my experience, but I know most of the men in my line, and I am personally acquainted with most of the contractors who work for the Government. There are lots of men who do very good work, but who rarely see Government orders or contracts.

4863. Are you speaking of the British Government now?—Yes. I do not think these people would get the same consideration as they do if they were not to exhibit, because there is always a certain amount of kudos which sticks to a man who has got a lot of medals.

4864. You have given us a very lamentable account of your position at Chicago; can you tell us how it was that you were not choked off from ever exhibiting again?—I do not believe in sitting down under your misfortunes. If I had I should not be here to-day, I think.

4865. How was it that, after all, you got your five highest awards?—I came in contact personally with the jury. Being over there, I was able to explain to them all the technicalities of anything special that I had. That is a great thing with the scientific instrument maker, and, as you can understand, the man who makes the instrument knows more about it than anyone else.

4866. (*Chairman.*) You did not leave that to your agent?—Not a bit.

4867. (*Mr. Harris.*) Can one say that you "nobbled" the jury?—That is it.

4868. (*Sir Isidore Spielmann.*) What medals did you take in Chicago?—Bronze medals.

4869. I thought you said you took the highest awards there?—That is so. They did not give any silver medals, and they did not give any gold medals.

4870. (*Mr. Harris.*) That is, not in your section?—Not in any. At Chicago the medals were all bronze.

4871. (*Chairman.*) Was it not the case that if you were awarded a gold medal you had to gild your own bronze medal?—That is the case in all exhibitions.

4872. (*Sir Isidore Spielmann.*) But there was only one grade of medal at Chicago, you say?—That is all. At St. Louis it was a silver medal; but then I only sent a very small show there.

4873. (*Mr. Harris.*) I should like to understand how you did exhibit at St. Louis after all. You suggested to the Chairman, I think, that it was in part a collective exhibit?—Yes, it was.

4874. With whom did you go in?—I went in with a man named Cossor, a glassblower.

4875. At the requisition of the Government?—Yes. One of the Royal Commission, a young fellow named Baugh, had a good deal to do with selecting the people. He said to me, "I wonder you do not go in for this St. Louis Exhibition." He said, "I think some of those instruments are very nice. You had better show them there. We are making arrangements with Cossor that he should go in for a show-case, and if you like to join him it will not cost you a penny." It did not cost either Cossor or myself anything.

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4876. Who paid for you, then?—The British Government.

4877-78. That was not true of most of the exhibitors, was it?—Yes, it was true of all the lot. Mind you, there I think they erred on the side of generosity. I think, properly managed, they could do it at a very small cost to the exhibitors, if their officials were to see it right through and take their proper position. In Chicago, the German Consul had two permanent clerks put under him out there, in order to act as clerks for all the German exhibitors. That brought them hundreds of accounts.

4879. How do you mean that it brought them hundreds of accounts?—Because a German exhibitor arriving there, not knowing the town, not knowing the people, and not knowing even the English language, when he got a man there wanting to buy his stuff, one of these clerks would be sent up and do all the necessary writing for him, stating the prices and interviewing the man; and it did not cost the exhibitor a penny, but he got large orders through it.

4880. Were they orders just for the time?—No.

4881. Did they lead up to permanent work, then?—They have continued to do it ever since. It has been a grand thing for them; it has got them well established there.

4882. Do you think, if something similar could have been done for you, our manufacturers might have reaped a benefit in the same way?—Just the same; I am certain of it. The Germans are very sharp in looking after all that sort of thing. Look at Zeiss's factory. You know that the Government stepped forward and found them £120,000 when they were practically bankrupt.

4883. (*Chairman.*) What Government?—The German Government. To-day their town is probably the most flourishing town in Germany, and never costs the Government a penny.

4884. (*Mr. Harris.*) You said just now, "I know where my goods go, and therefore I know where to send my travellers"?—Yes.

4885. Do you never try to break new ground by your travellers?—Yes, I do. I generally break up new ground myself.

4886. Personally?—Yes; that is the best way. If I can have time to travel myself I can do it very well.

4887. You do not wait for your goods to find their way to a place by means of an exhibition, or in some other way, before you do that?—We look upon an exhibition as a great means of helping us. If I go to an exhibition I always go to the scientific department at once; that is the department that interests me. I carefully overhaul every case that is there, and there is very little that escapes my notice. If I see anything I think is useful to me I write to the man who is exhibiting it. The same remark applies to others. I have got one or two people in Paris now—I suppose it might be half-a-dozen, very good houses—regularly buying my electric motors and things of that sort.

4888. Do you attribute that to an exhibition?—There is no doubt that has been the cause of it. We are looked upon as somebody. Radiguet, the scientist who died the other day, or, rather, his firm, is a customer of ours, and regularly deals with us. We are well known to all these men, but we should not have been if we had not appeared at these exhibitions.

4889. (*Chairman.*) And yet you say you think one every ten years would be quite often enough?—Yes.

4890. Surely, in such things as electric motors and dynamos a great deal happens in ten years?—Yes, there is no doubt there have been enormous strides made in that way. We exhibited at Olympia when the Electric Show was on. That was a private affair, and, although it was a very successful show, I assure you that if it were run every year it would get vapid, and people would not take any notice of it. If it were run as a yearly show it would not pay.

4891. That is a point I wanted to put to you. Are you in favour of those special exhibitions? Would they satisfy you as well as a general and universal exhibition?—That is rather a wide question to answer, and I should not like to say for certain. Personally, if it was a good scientific exhibition I should be delighted to go in, but I am afraid that scientific instruments would not be sufficiently attractive to the general public. It is a curious thing as regards a lot of the

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best instruments that it is not the scientific man that is any good to you, but it is the men he brings in his wake. Directly Professor So-and-So says it is a good thing, Mr. So-and-So must have it. Whether he knows much about science or not, he thinks it is a proper thing to do.

4892. I think you said you exhbited at the Electrical Exhibition at Olympia last year?—Yes, and we were very well satisfied with that; it was very good.

4893. Still, you think it should be more of a universal exhibition, with other attractions?—I do think so.

4894. In order to bring a large number of people to it?—Yes. But, mind you, I think some of these exhibitions, like the Paris Exhibition, get a great deal too unwieldy. That is a point you have to consider. Some of the big exhibitions have not been so good as some of the smaller ones.

4895. Because the place was so enormous?—Yes; you got lost in it. Sight-seeing is very tiring, as you know, and if you go over an exhibition for half a day you are very glad to get out of it, aren't you?

4896. (*Mr. Wilson Fox.*) I suppose, when you have been to an exhibition you have walked round it and seen the other exhibits?—Yes.

4897. Could you form, roughly, any general opinion as to how the other British exhibits compared with the foreign exhibits?—Which exhibition are you thinking of?

4898. Take any great international exhibition you like—that you have been to. Can you say whether the British exhibits generally, and apart from your own exhibit, compared favourably or unfavourably with the foreign exhibits?—I think as regards the quality of the goods they compared very favourably; but they were not collectively as fine, as a rule, at the different exhibitions as some of the foreign ones.

4899. It is your point that they were not shown off so well?—That is my opinion.

4900. They did not present such a good appearance to the public?—That is so. The French are very particular as regards their exhibits. When they have taken on a certain space to fill in, they have had the same style of design all through, and they have done it with great artistic taste. Take Chicago. The Germans there made a splendid show, and ours looked like a workhouse. They got some beastly lions' heads, which were not even gilt—they were done with this Dutch paint, Dutch metal—and they were looped up with loops of red and white and blue in the commonest cotton stuff they could buy at the commonest store in Chicago. Do you know that the average American countryman is a great deal more innocent than our ordinary English countryman?

4901. (*Chairman.*) Are you referring to the thousands of people one used to see coming into Chicago from the West?—Yes. It seemed to me with the majority that the people who got on best with them were the men who told the biggest lie. The larger the legend they told them the better they seemed to enjoy it. I am sure that the British exhibits, if they are properly placed before people, will go off all right; but we are not such puffers as the Americans, you know.

SIXTEENTH DAY.

Thursday, 18th April 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
The Right Hon. Sir James Kitson, Bart., M.P.
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Swire Smith.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Sir Albert K. Rollit, called and examined.

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4901*. (*Chairman.*) What has been your experience in connection with exhibitions?—I have been President of the Brussels, Antwerp, Bordeaux, Liège, Milan, and other British Commissions, and a member of the Royal Commission for Paris, 1900, etc., and of the Amsterdam and Kiel Commissions.

4902. You formed the Brussels Commission, I understand?—Yes. I was asked, as President of the London Chamber of Commerce and Chairman of its International Exhibitions' Committee, to undertake the formation of the Brussels Commission by Lord Curzon, as Under-Secretary of State for Foreign Affairs and Chief of the Commercial Department of the Foreign Office; and a grant made for this purpose to the Commission was accompanied by a request from Lord Curzon that the London Chamber of Commerce should organise the Commission, that I should be its President, and that Mr. Dredge should be the executive commissioner. I mention that because it is the *fons et origo* of the action of the London Chamber of Commerce in connection with International exhibition commissions.

4902*. That was in 1897, was it not?—That was in 1897, upon the initiative of Lord Curzon. I assume Lord Curzon desired thus to have both a collective and personal assurance of the proper administration of the grant.

4903. We should like to know your opinion as to the effect of international exhibitions?—My opinion is that international exhibitions promote international trade and benefit the political relations between States—both being, in my opinion, matters of the greatest importance, especially in modern times, when the chief feature of the general position is the growth of internationalism and the spread of international trade and commerce. International exhibitions subserve the purpose of comparison and present points of competition, and they are one of the best forms of national industrial advertisement. I should like to add that by advertisement I do not at all mean entirely individual advertisement of either firms or business men, but advertisement of the industries and progress of countries. May I also add that I think one important consideration to bear in mind is that exhibitions are object lessons of the relative conditions of industry and of the possible points for improvement. One great consideration is, that while many men would not go to a foreign country, probably in some cases very distant, merely to explore, they would and do combine business with pleasure, and take the opportunity of getting to know something of the *personnel* of the nation which is holding the exhibition, and at the same time of observing the conditions of its industries and of the industries of other nations as compared with our own. Thus they get most valuable business information. If I were asked to mention firms who had got that advantage, I would reply that the theory of exhibitions is by no means an exact science, and I do not recollect individual cases; but I have made general inquiries and I have exercised on many occa-

sions general and careful observation, and what I have said is the summary of my opinion.

4903*. We do not want from you so much the experience of individual exhibitors, because we have got a good deal of that from them; what we want is your general impression?—It is a general impression that I have conveyed. May I say this as an illustration—that it was a revelation not only to myself—a man of no special knowledge on the particular subject, though I was greatly surprised—but to many business men to observe at Paris the vast progress made by the United States and Germany in relation to special machines. I am thankful that when there was great room for advancement on our part observation has tended greatly in that direction; at any rate, that was a great lesson at the Paris Exhibition.

4904. I understand you think there is no option, in the interest of British trade but to take part in international exhibitions?—I think not, if we are to keep well in the race and under the notice of other nations. I am satisfied that it is not a question of whether a particular exhibit is good (though of course that is often useful); it is a question of whether the country is keeping up to the times and availing itself of the progress of science and of its necessary adaptations to industries, also of design and taste and presentment of goods. Then exhibitions afford an opportunity of bringing new products, novelties, and specialities under general notice. The general use abroad of British agricultural implements, some special machines, and of sanitary appliances, is one indication of the benefit of such exhibits. As I say, I think there is no option, in the interest of British trade, but to take part in international exhibitions. We must put in evidence our ability to compete and to bear comparison, or we shall be beaten. The political benefit is shown by the undoubted fact that the International Exhibitions at Bordeaux and Paris, coupled with their official and commercial recognition, by the Corporation of London in the former case, and by the Association of Chambers of Commerce in the latter, have been prime factors in the achievement of the *entente cordiale*. I may say that I went to the Bordeaux Exhibition with the Lord Mayor, to whose recognition of that exhibition I have just referred as "official," and undoubtedly the first ripples of the *entente* were then heard at Bordeaux, and were, in my opinion, emphasised and carried into great practical effect when the Chambers of Commerce met in Paris in 1900, its International Exhibition year.

4904*. That is very interesting; what was the date of the Bordeaux Exhibition?—That was held in 1895. May I add also that Bordeaux was a very free trade city, and that it had great English connections in trade? It was the city of Richard of Bordeaux, and there were many traces of the old English occupation, and of English names—all of which, I think, tended to the very good feeling which was promoted so much by the visit, under the auspices of Sir Walter Gilbey, with whom we were staying at his chateau in the Medoc.

4905. As that was in 1895, it took some time to bear fruit, because the feeling in Paris was not very friendly for some years after that?—I admit that; but there were special causes—Fashoda and the "Pinprick Speech." But these were only passing interruptions of a general feeling.

4905*. You approve of grants being made by the Treasury in aid of the British section, I presume?—Yes.

4906. Do you think, judging from your experience, that they have been well, economically, and beneficially administered?—In my experience, they have, as a rule, been well, economically, and beneficially administered. In the case of Brussels we made a return to the Treasury of about £820, as a surplus from the grant of £4,000 for the Commercial Section and £1,500 for the Art Section, which was a very great feature, perhaps the best show of that kind that has been done on the Continent. In the case of the Milan Exhibition, there will be a much larger surplus—probably £4,000 to £5,000—from the grant of £10,000. In the case of the Brussels Exhibition, the Commission formed by the London Chamber of Commerce received the thanks of the British and Belgian Governments for their services. I may add, as it has a bearing on the matter, that the Commission itself raised a guarantee fund of about £7,000 to protect the grant—lest the grant, I mean, should be inadequate.

4906*. Was that in the case of Milan or Brussels?—That was in the case of Brussels. It was done to enable us to deal freely with the grant.

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4907. Now, we will go on to Milan, I think?—In the case of the Milan Exhibition, I had numerous interviews as to the grant with both the former Chancellor of the Exchequer, Mr. Austen Chamberlain, and the former Parliamentary Secretary of the Board of Trade, Mr. Bonar Law, both before and after a deputation from the Commission waited upon those gentlemen; and with great difficulty and after very long negotiations, the grant of £10,000 was obtained, which, I believe, was largely due to the representations of Mr. Bonar Law, and also to political considerations. I might mention that as a last resort, I asked the Italian Ambassador to communicate with the Government and others and to point out such considerations; and I believe that ultimately led to the grant being made. The negotiations continued for several months. At one time, it appeared probable that the grant would not be made, whereupon, as we felt the necessity, we nevertheless proceeded with the work of the Commission and should probably have carried it through in some form, as at Liège, but our work was of course greatly aided by the grant. I may say we proceeded after a conference with the representatives of the exhibition from Milan, and we should have provided like we did in the case of Brussels, the necessary funds rather than let the thing fall through; and as the results have proved, if we had formed a guarantee of £7,000 and used it all, it would have been fairly adequate. The grant was nevertheless made late, and was too small for many purposes and more than was necessary for the time and conditions under which we had to do the work.

4907*. That is an important point, because you have already told us that you think of paying back from £4,000 to £5,000, which looks as if you had asked for too much money?—It appears to be a paradox, and I will explain it. We had £10,000 to deal with. We did not, as in the case of Brussels—I do not know why—form a guarantee fund to protect the grant, but if we had thought of it I think probably we should have done so. We always had to work according to the limit of our cloth, and we could not do what I think ought to have been done—namely, make some definite promise to exhibitors that we would do what we ultimately did, out of the surplus, when we were sure—namely, make a return based upon the amount we charged them for space, in order to partially recoup the cost of transport to, and in, Milan, and terminal and other charges. Transport charges are excessively heavy in most cases, and in the case of transport in Milan they were exceptionally so. We could not tell exhibitors firmly that we would make some contribution towards the cost.

4908. Was that because you had not got your grant early enough?—It was partly because we had not got our grant early enough, and partly because we did not know how far it would go according to the exigencies. Therefore we were in this position, that we could not deal as definitely as we could wish with the exhibitors. If we had been able to do so we could have no doubt induced more exhibitors to come forward.

4908*. Have you got this money to spare because you did not get sufficient exhibitors?—It was owing to the lateness of the grant and its limited amount.

4909. To the lateness of the grant?—Yes, and I would also say that it was owing to a circumstance which I think is worth mentioning. Exhbitions, like everything else, grow, and even the promoters themselves did not realise, either at Brussels or Milan, the extent to which their exhibition would grow. At Milan it overgrew, and we found that owing to that we were pressed for time and as to space, etc., etc. We did not get the grant till September. Mr. Serena and I instantly went off to Milan, and made the best arrangements we could as to space. We came back, and sold it at 2s. per square foot to our exhibitors, which was a low price; and if we could have said definitely, "We will either give you space or help you towards space," or "We will defray some of the transport and terminal charges," I am sure we should have got more exhibitors.

4910. What was the mode of the formation of the Commission?—In connection with this my evidence may be as useful as upon any point. We have on the London Chamber of Commerce—and I think it is the only organisation for that purpose—a standing International Exhibitions' Committee, which is a permanent

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Committee, of which I am the chairman. We have had it for many years. It is without funds, except those of the Chamber. We do all we can to get intelligence about exhibitions, and when we hear of one likely to induce Great Britain to take part in it, we take some preliminary steps. We do our best to get provisionally a grant; if we cannot get a grant we still go on—we did at Liège without a grant at all.

4911. Does your Committee decide whether the exhibition is worth having a grant for?—Undoubtedly—that is, in our opinion. We go carefully into all the details furnished to us. Deputations come over and interview us, and we thoroughly thresh it out with them. Then we recommend to the Council of the Chamber either that they should take action or the contrary. If the Chamber resolves to take action, we consider whether we can induce the Government to participate and to definitely make a grant, which is important for two reasons: It is the outward and visible sign of recognition, and therefore most important in the view of the nation where the exhibition is; it is also an official sanction of the action of the Commission; and perhaps, above all (though the other two points are very important), it gives means of action.

4912. I think we should like to know the composition of this Committee; do they represent manufacturers as well as merchants?—Undoubtedly; but remember, please, that London is not a manufacturing city in the ordinary sense of the term, though it is a much greater manufacturing city in the shape of household, domestic, and other industries than people suppose. It is a Committee consisting of business men and experts; and I could have mentioned, if I had thought the inquiry would have been made, many men of standing. I will put in a list of the Committee.

4913. (*Sir James Kitson.*) Have you a permanent secretary?—We have one of the clerks in the Chamber allotted for our work, who does it regularly; in that sense he is the secretary of that committee. I think I spoke just now of myself as being the permanent chairman. I should have said that I have been chairman for many years consecutively though re-elected yearly.

4914. (*Chairman.*) Do you think the Committee of the London Chamber of Commerce is as capable of doing that work as a committee of the whole Associated Chambers would be?—I think it has done its work, as proved by its surpluses and (under difficult conditions) its comparative success, well; but if I were forming a permanent organisation I should undoubtedly form one composed of the London Chamber of Commerce, which is a Chamber of some 4,000 members—no other can approach it—and of the provincial Chambers. But that brings me to our next step. The next step we take, is to have a meeting of the Exhibitions' Committee to go through the lists of the old commissions, so as to get continuity and expert assistance, and to add representatives of the Provincial Chambers, whom we welcome. I think the Presidents of the Manchester and Leeds Chambers, the President of the Associated Chambers of Commerce, and I should say nearly 20 representatives of the Associated Chambers were members of the Commission. Sir Edward Fithian, the secretaary of the Associated Chambers, has been one of the honorary secretaries in all cases as far as I remember—certainly in Milan and in Brussels.

4915. You are speaking now of the Commission which you formed?—Yes. Then anyone—I am speaking generally—who was eligible, we have been pleased to add. We communicate widely, and I always take willingness to work as one good criterion of the probable value of the work. We had a most representative and influential Commission. I can give you the names, of course.

4916. We do not care about that; the only point for us is that the first steps were taken by your Committee of the London Chamber, who, on their own responsibility, settled that a Commission should be formed for a particular exhibition?—Certainly, but I repeat that the official *fons et origo* was Lord Curzon, not the London Chamber.

4917. Lord Curzon, of course, is no longer in the Government, but you are a permanent body?—I think it was a very good plan, subject to the modifications I have indicated, and it has worked well.

4918. You have told us the steps which you took, which show that you got a very excellent Commission together, including members of the Associated Chambers of Commerce, as you have told us?—I think of the total of about 90 at least some 20 were connected with the provincial Chambers in addition to the Associated Chambers.

4919. Then you gave your offices free of cost, which was very useful?—The London Chamber gave the use of offices free of cost throughout, but they were quite distinct, in a building which we let to many other people. The Chamber also, in the first instance, gave much clerical assistance. Owing to the shortness of the time we had much difficulty in obtaining exhibitors, but we did everything in our power to this end. Business was also beginning to be brisk, and this was necessarily an additional impediment, having regard to time. I believe the exhibitors were perfectly satisfied with the action of the Commission. I spoke to some of them at the Exhibition, and also to their representatives, and they so expressed themselves. But we had not been able to do as much for them as we wished owing to the smallness of the grant, especially having regard to the heavy transport charges in Milan and previously, though we have returned out of our surplus a proportion of the charges in proportion to space taken, according to an understanding which we made previously, because we did not know how our grant would plan out. Foreign Governments and organisations do a great deal more for their exhibitors, notably in France, where there is a permanent institution in aid of exhibitions and exhibitors, with what I may call exhibition stock-in-trade—uniform show cases, etc. This is a recognised public institution in France, and it is, as I know from local knowledge, as a former director of the British Chamber of Commerce and a resident for some years in Paris, highly approved. While some more permanent organisation might be desirable in this country, I consider that in the case of the exhibitions I have mentioned, the organisation and machinery have been good and effective and economical, chiefly owing to the co-operation of the Chambers of Commerce; while continuity of knowledge and experience has been maintained by the Exhibitions' Committee of the London Chamber of Commerce, and by the appointment on each successive Commission of members of former Commissions. Had more time been given by the earlier allocation of grants much more would have been done. Between September, when the grant was made, and the opening of the exhibition in the early spring, the work was necessarily done under the greatest pressure. Having regard to the amount of the grant and the time available, the result was satisfactory, especially in certain departments closely connected with the leading industries of this country, such as agricultural implements, land transportation, sea and inland water transportation, decorative arts, the Industrial Working Hall, etc. May I mention about the Industrial Working Hall that it was an innovation and an excellent one? It was very interesting. You saw the whole process of manufacture by a special machine, and you saw the result. But it limited us very much in obtaining exhibitors, for we could not show anything except it was in process of manufacture. It was not a universal exhibition; it was an international exhibition, but not a universal exhibition. We tried to get a collective textile exhibit from the West Riding, but a collective exhibit, unless the machines producing all the products were there, was not admissible. The department and the departure were excellent, but the result was a little unfortunate as far as British exhibitors were concerned.

4920. Now will you deal with the question of awards?—I was a member of the superior jury or jury of appeals, and am of opinion that the greatest care was exercised in making awards, in which Great Britain was very successful, both absolutely and relatively. We took a greater percentage of awards than any country except Germany, and we took more gold medals (which is the third grade) than Germany itself. The Italian Minister of Commerce presided over the meetings of the superior jury, which lasted the greater part of a week; and from what passed I am satisfied that the sectional juries had, as a rule, done their work well and carefully; and I know that in the case of the jurors for Great Britain (notably Sir Thomas Brook-Hitching and others), whose services were honorary, the work had been well done. Some criticism was made or rather inferred by questions in the House of Commons as to the appointment of one of our jurymen, but I am satisfied that there was no ground whatever for any complaint or complaints which have been made, and such questions indicated a great want of knowledge of the actual facts. That was a case of the Fisheries, where the Japanese Commissioner, we having no fishery expert, acted, and

acted most ably for us. May I just give one illustration of the value that an exhibition may be? I went to that exhibition, and owing to what I saw with regard to the Fisheries—I am commercially very largely interested, and have been so for years, in the deep-sea fishing industry in the North Sea—I came to the conclusion that there was a great opening in the Adriatic. The North Sea now is so depleted that we have to go, I may tell you, from Iceland to Portugal to get our fish. I came to the conclusion, as I say, that there is a great opening in the Adriatic. That will give you a purely casual illustration of what anyone may learn from an exhibition, which led me to go to Trieste and examine the matter more closely, with the result that I made recommendations to my Hull Steam Trawling Company on the subject. For the same reason I went to see the Fishery Exhibit of the Roumanian Exhibition at Bucharest.

4921. Did you get the information which led you to that conclusion by going to the exhibition?—Yes, and by going to the Roumanian Exhibition, which I saw at Bucharest, and to the fish market at Trieste. I came to the conclusion that the Adriatic is a place where, owing to the backwardness of the Italian fishing industry, there might be a new field for British enterprise—certainly there is a great collection and variety of fish there.

4922. Now I come to a very important point—that is, your suggestions for improvements in organisation. I think you do not favour a Royal Commission as the best means of administration?—No, I do not.

4923. In that you differ from a good many of our witnesses, I think. You do not seem to attach importance to having a Royal Commission, with the prestige and dignity which would attach to it?—I have seen that there has been some difference of opinion about it. I speak chiefly from my knowledge as a member of the Paris Commission. In the case of the Paris Commission, evidently someone had organised it, or someone had disorganised it, without local knowledge to any extent, and without commercial knowledge, for it was notoriously deficient in the commercial element. I attended as a member of the Commission only two meetings. At the first we received resolutions appointing committees—all printed and ready with the names—and at the last we passed a vote of thanks, or received a vote of thanks, or said we ought to receive a vote of thanks, for our services. I was placed upon a committee which I had no connection with. On some other Committee I might have been useful, but I was placed upon the Furniture Committee. If there is a subject which I take less interest in than another it probably would be that. I am only taking one case of a square man in a round hole, or of a round man in a square hole; and I saw many illustrations of the same fact.

4924. You think a Commission organised by the London Chamber of Commerce would be a better organisation?—I think so, if organised with a standing Committee in permanence—not by the London Chamber necessarily, but by co-operative action on the part of the Chambers.

4925. What part, if any, would the Government take in that?—I should say the Government would be among the constituent bodies, and largely represented, through both the Treasury and the Board of Trade; but I do not think it should be a Departmental Government Committee. That is my own impression.

4926. Did you attend more meetings of your Commission at Milan than the two you attended at Paris?—I should think I have attended 30 or 40, including Committees.

9427. Forty meetings of the Commission for the Milan Exhibition?—I should think so.

4928. Not out there?—I am including the Commission and its committees. I was chairman of the executive, and of other committees, and for a week a member of the superior jury. I should think I have attended thirty meetings, at any rate.

4929. Who would you make the chairman of the permanent body?—I am a believer in election. I think it is best for a body when formed to elect its own chairman. It knows who is the most likely man to do the best work.

4930. Would you have a permanent committee or commission of the Chamber of Commerce?—I should have a permanent committee, the basis of which should be the Chambers of Commerce, because exhibitions are commercial undertakings. It should undoubtedly have representatives of Government and of the departments. That, I think, would be the best nucleus; and on the occasion of any particular exhibition it should have representatives of the trade and commerce with that country and also exhibition experts.

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4931. Then you want money; I see you say at the end of your proof: "With the aid of Government grants." Would you ask for a particular sum of money and expect to get it from the Treasury?—No. Everything depends on the circumstances, and the Government would have the last word about that, of course—absolutely. It would depend to a certain extent upon the representations we made and upheld. I do not seek at all to get the control for this committee for the London Chamber, though I wish particularly to add that in the Brussels report we recommended—and I think it would have been wise to have given it—that the surplus we returned of about £800 should be the nucleus for minor exhibitions to enable us to do some preliminary work. I think there should be a fund, even of a very moderate amount, for that purpose.

4932. Would you not come across the Public Accounts Committee very much then? It would be worse than a grant in aid, would it not, if it was to be carried over from exhibition to exhibition?—I do not think so. It could be made as a grant with no liability to return, only to account; there are Parliamentary precedents for such cases.

4933. You mean that it should be granted to a particular body?—Yes, to the permanent commission. May I say that I think that would be the nearest approach (and in the best direction for this country) to the French system, which is rather more bureaucratic than I think would be well here.

4934. You do not like the German system then?—Certainly not; that is thoroughly bureaucratic. At the same time it has been very effective, and very liberal money grants have been made—there is no denying that.

4935. You want to get money, and you want to keep it thoroughly in the hands of the commercial people?—With adequate Government control and representation. The basis—I use the word advisedly—should be Commercial; it would be for a commercial purpose.

4936. You are aware, of course, that the French system is a little different from that? You have got the basis of a grant, have you not?—Yes.

4937. And the people also subscribe, do they not?—I do not know whether they subscribe, but the Government helps. They have funds to provide cases, to do provisional work, and to meet preliminary expenses; and most effectively do they present their goods.

4938. Would the Commission for a particular exhibition be the judges as to what should be exhibited? Would they have the control of the collective exhibits?—When an exhibition was undertaken, I should think they would have to co-opt persons connected with the particular countries and industries, and when the Commission was thus extended I think they should be the controlling body as to the commercial part of it. Of course, if they did their work badly, then, like any other department, they would be under the control and criticism of Parliament and of their department.

4939. The control and criticism of Parliament is generally exercised through some department, is it not?—It has been attempted to be exercised as to Milan in several questions which had not a shadow of substance about them.

4940. You mean questions in Parliament, but I mean that the control of Parliament is generally over tht departments?—The influence of Parliament is much beyond the departments.

4941. Then you would not contemplate having this fund audited by the Audit Office, would you?—I do not know why a special provision to that effect could not be made. We are not bound down absolutely by precedent in such cases. I do not see why it should not be audited just like local accounts, or why there should not be a report. It might be part of the terms of the grant that a report with accounts should be presented to Parliament.

4942. (*Sir James Kitson.*) In your opening statement you said that the general use abroad of British agricultural implements, some special machines and sanitary appliances, is an indication of the benefits of such exhibitions. Are you aware that long before the era of exhibitions British agricultural implement makers, like Clayton, Ashworths, Robeys, and the rest, had

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established a great trade on the Continent?—Undoubtedly.

4943. I suggest that you attribute a little too much importance to the extent of exhibitions on that particular industry?—I am perfectly prepared to modify my statement to *one* of the advantages of exhibitions. I think I said so—at any rate, I intended to convey it—that *one* advantage of exhibitions had been that.

4944. The Committee is anxious that the importance of exhibitions should not be exaggerated, so I take you on that point. There is an enormous business done in that, and we lead in that branch of industry, do we not?—Undoubtedly.

4945. And we lead, not in consequence of exhibitions, but in consequence of the excellence of our manufactures?—I suggest partly in consequence of the advertisement by exhibitions, and, of course, otherwise.

4946. With reference to the advisability of assistance, you make a point of the *entente cordiale* and of political relations; but should trade not be considered rather than possible political advantages?—Trade is the primary consideration and factor beyond all doubt, but I was speaking rather historically, and political considerations have had weight in St. Louis undoubtedly, and in Chicago, and, as I know, in Milan.

4947. You gave us quite a full statement as to your work on Commissions and so on; and you say that in the case of the Milan Commission you would have carried it through in some form, even if you had not had a grant?—Certainly, we had practically arranged to do so.

4948. How would you have carried it through?—We should have carried it through probably as we did in the case of Brussels, by forming a guarantee fund; and I do not doubt for a moment that we should have had assistance in various other ways.

4949. Would your guarantee fund have come from interested traders?—Not at all. It was subscribed by members of the Commission in the Brussels case, and would have been so in this case.

4950. What would be their reason—patriotism?—Certainly. In the case of Brussels many of us guaranteed £200 apiece, simply to protect the grant and to enable us to have a freer hand in dealing with it at an earlier stage than would otherwise have been possible.

4951. If you were so public spirited, do you not think the Government might rely upon that public spirit in the future rather than on grants?—I think it would be very unfair, I will not say to rely upon it, but to expect it or to ask it as a regular thing.

4952. I think you made a casual observation that the London Chamber of Commerce could not rely on London, because it was not a manufacturing centre?—Hardly that. I said that it was not generally regarded as a great manufacturing centre, but I added distinctly that, taking into account the domestic industries, the household industries—as distinguished from large manufactories and mills—it had distinctly a large manufacturing character.

4953. The information which has been given to us is that London is growing, owing to the fact that it is becoming a great industrial centre?—I should have said that the industries were migrating largely to Reading, Huntingdonshire, and other places, where I see them from the railway; but it is still much more than people generally suppose a manufacturing centre.

4954. I am only suggesting that you, as the representative of the London Chamber of Commerce, should keep up your flag?—Certainly. I think you did not hear that I said I should not take it down, or, perhaps, I should say did not infer that from what I said.

4955. You say that notably in France there is a permanent institution in aid of exhibitions and exhibitors; do you know what the cost of that permanent institution is?—I cannot say at the moment.

4956. Can you give us any guidance as to the cost of this proposed permanent Commission which you suggest?—It ought to be very slight, and I believe on the lines I have mentioned that the cost would be inconsiderable.

4957. (*Sir Isidore Spielmann.*) I think you say in two places in your proof that you regard our participation in these exhibitions as competitions; you say we must put in evidence our ability to compete and to bear comparison, or we shall be beaten?—Yes, in the long run.

4958. Are you not of opinion that we are usually beaten at these exhibitions—I am referring to the British sections?—No. The awards show exactly the contrary, both at Brussels and at Milan. In quantity it may be, and, time and other things considered, that is not wonderful; but in quality undoubtedly the awards show beyond question that we are well to the front.

4959. Do you regard the number of awards as indicating success?—Yes.

4960. Even when the number of awards is obtained by a scramble, as it were, on the part of our jurors?—As far as my experience, knowledge, and belief extend, that is not a correct or fair statement of the facts. As a member of the superior jury I had no reason to suppose for a moment there had been anything of the sort, and the appeals brought before us indicated the contrary. I have a report which I could refer to which also indicates the contrary. Of course, as in all cases, there will be defects in management of some sort; but, taken as a rule, I entirely dispute the statement.

4961. We have been told by witnesses who have given evidence here that awards are often obtained for this country in the way I have described—that is to say, there has been a scramble for those awards?—That I decline to accept in the case of Milan or others I have been connected with.

4962. As regards the general effect of the British exhibits, do you consider that the British sections, as a rule, compare favourably?—Time, grants, and circumstances considered, I think that the British sections have done very favourably; and I say the awards confirm that view.

4963. But as regards the general appearance of the British sections, as compared with the appearance of those of France or Germany, what would you say?—What could we do for appearances or in decoration or a pavilion, etc., at Milan with a grant such as we had? We had to dispense, advisedly, with outward show and decoration, and to make the best of our money by inducing exhibitors to exhibit. We did not attempt any show.

4964. I am not particularly referring to those exhibitions where you yourself have been President of the Commission; I am referring to the British sections at all the international exhibitions. Do you not consider that, as a rule, they compared unfavourably in the general arrangement of the section and were inartistic as well?—I agree that that is so; but it is a national defect, comparatively, of our nation that we do not do sufficient about the presentment of our goods in any way, even in our own markets, as compared with France and other countries. One of the objects of comparison by an exhibition should be to improve that; and I think it is improving.

4965. Do you consider that the small amount of the grant has had anything to do with it?—Undoubtedly. If we had had a freer hand, I think, we should have attempted more in the earlier stages, I will not say in the way of decoration, but in making the sections more distinctive. We might, for instance, if so determined, have had even our own pavilion, as Belgium had, which, I think, would have been of some service, by aggregating more of our exhibits.

4966. Later in your proof you say that when the London Chamber of Commerce promotes an exhibition you confer with other Chambers of Commerce in Great Britain. What is your experience as to the result of such efforts? Do you consider they take a sufficient amount of trouble to procure you exhibitors?—What we did in the particular case of Milan was to send our assistant secretary from the Chamber of Commerce to several provincial Chambers, to give information in the shape of answering questions and a short address. In regard to personal co-operation, through the President and Secretary of the Associated Chambers and the Presidents and members of several individual Chambers there was co-operation. But I am not goin to deny at all that there is an indisposition in this country to exhibit, which I regret and lament, having regard to my opinions; and to that extent I admit there was not that alertness which there ought to have been; in my view, of course.

4967. As a rule, do they procure you exhibitors, or do they disappoint you?—I think they help to the best of their ability. There are Chambers of Commerce and Chambers of Commerce.

4968. (*Chairman.*) I think we shall all agree with that?—Those who know.

4969. (*Sir Isidore Spielmann.*) You say that at Milan you could not do more for the exhibitors, owing to the smallness of your grant. But you returned money. Why did you not spend that money, and do more for them?—I explained that paradox—I wrote it as a paradox in my proof of evidence—by saying that it was to small to enable us to act early and energetically, instead of being compelled to constantly regard the limits of our cloth. It admitted of a surplus because we worked things economically and finely, and in the end we shall be able to make a return to the Treasury. But if we had had more we might have helped transport and terminal charges, and we should probably not have charged even so much as we did for space; we should certainly have helped more with regard to the storage of cases and the like. I stated it as an apparent paradox on the face of it, and I gave my explanation.

4970. (*Mr. Harris.*) If you have this money to return, what has prevented you from giving a greater return to the exhibitors, instead of returning it to the Treasury?—We had an understanding with the exhibitors that if we had a surplus we would return them some 25 per cent.; that was our bargain. But, of course, the surplus, though a surplus, was not ours to use, and if we had paid them all their expenses I think the Treasury might have said, "Well, that was not your bargain with them. Your surplus ought to have come to us, or you should at least have taken our direction." We went to the utmost limit that we felt we properly could.

4971. (*Sir Isidore Spielmann.*) With regard to your always working against time, and to the pressure under which these exhibitions are said to be promoted, how does it happen that when the London Chamber organises an exhibition they have not plenty of time? We are often told that when Royal Commissions are formed, exhibitions have to be promoted against time, but where you have plenty of time, and where you are your own masters, why is there pressure then?—I may mention first that the preliminary negotiations with the exhibiting country are often prolonged. They do not realise very often at first—and they did not either at Brussels or at Milan—the scale on which the exhibition is going to be. You have deputations to see, and particulars to get. The first step, and it is often a long one, is to get to know accurately and definitely what is intended to be done. Then you have to visit the country. Next you have to convince our Government on all these points. It took months in the lobbies at times when we divided during one part of a Parliamentary Session seeing both the Chancellor of the Exchequer and the Parliamentary Secretary of the Board of Trade. Hence time goes on. I did not get the personal promise of a grant till August, or, officially, until September, and the exhibition was in April. There is where the time is lost.

4972. Do we understand that you favour the voluntary system of allowing the exhibitors to send what they please?—As a universal rule, I should say no; there must be some selection and supervision, unquestionably. Even now we should not act otherwise, and we sometimes reject. We should not take any member on the Commission, though we accepted everybody, I know, except one; but we should not commit ourselves to accepting anybody and everybody, and we should not accept any exhibit. As a general rule, certainly, anybody should not be at liberty to exhibit whatever he chose, it should not be.

4973. What is your opinion of collective exhibits?—I approve of collective exhibits, and we did our best to get one; but the Working Hall conditions proved a great obstacle. You cannot get a collective exhibit very well, and send out several machines which may each differ in some points of detail, and show all in work and show all the different products at the same time, which was the condition. The collective textiles exhibit which we tried to get was not admissible. But I am distinctly in favour of some collective exhibits. At the same time, you will always find a good deal of—I do not like to use the word jealousy, but—independence on the part of manufacturers in preferring to show their own wares separately, instead of associating them with those of others. I know it and can quite understand it.

4974. Do you not think that the frequency of exhibitions is detrimental?—There is something to be said on that point, I agree.

4975. Have we not difficulty in obtaining exhibitors, owing to their frequency?—Possibly, to some extent. Mere frequency, I agree, is a point for comment.

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4976. You made a very strong point of that in the report which you signed as a member of the Royal Commission for the Paris Exhibition?—I do not go back, if I can ever help it, on what I have said, and I think I am saying the same, practically, as I may have written or signed there. Everything was prepared for us, and we did not dissent, if the necessity could be avoided.

4977. With respect to the grants, would you advise our continuing to participate in exhibitions if only small grants are given?—Yes. If no grants are given I should do my best. You are an advocate of exhibitions, I read, and I am the same; and I should still do my best to try to get the country represented.

4978. Suppose you cannot make a good show in comparison with other countries?—Then, in any walk of life, I should not do it. If I were not going to do it reasonably well I should not do it at all.

4979. Did the London Chamber approach Belgium as regards participation in the Brussels Exhibition of 1897?—No. My remembrance is that several of us, including, I think, Mr. Dredge, had been connected with the Anewerp Exhibition, and naturally they made the approach to those connected with that exhibition to take up the one in Brussels. That was, I believe, the origin of the matter. They approached us, so far as my recollection extends, but it is years ago.

4980. We hear of an exhibition in Brussels again in 1910. Has the London Chamber taken action with respect to that?—It has had it under consideration for some time.

4981. Has the Chamber stated that it would organise an exhibit from this country?—As far as I remember, the Exhibitions Committee has virtually approved the proposal. That went before the Council, and I think the Council affirmed it, and decided that it would act in connection with the exhibition at Brussels in 1910, if desired. It is part of its routine work to look forward to exhibitions. It has not gone beyond that stage.

4982. In a good many of these exhibitions which have been promoted both by the Chamber of Commerce and by Royal Commissions, where the industrial section has been weak have you not found it the case that the art section has very frequently come to the rescue, and saved the credit of the country in a great measure?—I have been wishful to give every possible credit to the art section at Brussels as I have done to-day, but I do not quite accept that view. We contributed £735 from the Brussels Commission in aid of the art section.

4983. I am not referring to the amount of the contribution?—No, but still there are both sides of the question to be considered. I admit the full value and great success of it at Brussels; but I put that other point forward, too. Art was a section of the Brussels Commission.

4984. Do you regard the Brussels Exhibition of 1897 as a great success commercially, apart from the art section and the section of ship models?—I think that for Belgium, as an industrial and engineering country especially, under Mr. Dredge's arrangements, machinery was well and adequately represented; and that that was the essential thing. With regard to art, I have already said, and I admit, that art was most adequately represented; but, after all, the art section was a committee of the Commission, and we contributed £700 to £800 in aid of the art section, and we were very much gratified by the result of the art section.

4985. I did not want you to say anything for art?—I know; but if you put it one way, I must put it the other way.

4986. I wanted to know whether you consider, apart from art and the collection of ship models, the British section at Brussels was a success?—Yes, certainly, as shown by the awards, and by my own observation. We owed much to Mr. Dredge especially from his engineering connections.

4987. (*Mr. Malcolm Ramsay.*) Might I follow up Sir Isidore's questions and ask you how often you think it would be advisable for this country to be fully represented at exhibitions—at what intervals I mean?—I do not think that you could demark the matter quite in that way. It would depend upon what exhibitions were coming on. I doubt whether you could ever say,

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"We will not take part in a great exhibition at Brussels or Milan, or Bucharest, etc., because we took part in one last year at Belgrade." I do not think you could quite go on those lines; but, of course, that would be a factor to be taken into account.

4988. You have given us a list of eight Commissions, I think, in which you have actively assisted as an organiser within the last ten or twelve years, including Brussels, Bordeaux, and Milan, not to speak of the ones in which there were Royal Commissions?—Yes. They are widely divided, and some of them were of a very special character, like Kiel.

4989. Would you have recommended that the Government should participate in all of these?—No, I do not think that they should, nor did they. I think personally—but it in only my opinion—that it was a mistake not to do so in the case of Liège; but some held there were political considerations perhaps the other way in that case, as compared with the time of Brussels.

4990. You are not prepared to specify any stated interval?—I do not think that principle could well be adopted, because an important exhibition might come forward which you could not refuse to participate in, and if you made that rule you would then be put in a wrong position. For instance, a rule was beginning to be set up that a grant should only be made to capitals, and it was forgotten, when that principal was urged against Milan, that Chicago was not a capital, and that other places—*e.g.*, St. Louis, were not capitals, whereas Milan was the industrial capital of Italy. That we had to argue for months.

4991. I suppose official participation would involve a grant of public money?—Not necessarily.

4992. I was approaching the matter from the point of view of Government grants, and in the which to ascertain the sort of expenditure which you think it proper the State should undertake for the purposes of exhibitions?—I can quite conceive the case of an exhibition upon the Commission of which the Government might even be represented, where it did not perhaps call for a grant; but I think that would be exceptional.

4993. Still, you could contemplate that as conceivable?—I could do so.

4994. Would you say that the prestige and the power of negotiation conferred by Government participation were more important than the actual cash which the Government contributes?—Both.

4995. Do you mean that they are both equally important?—Both equally. I do not think that the prestige would be current coin; we should want the coin also. But, still, official sanction is very strongly desired by the country where the exhibition is, and the Government grant, apart from any other considerations of way and means, is also desired for the sake of its emphasising the official sanction; that is their view.

4996. Now, speaking of cases in which there is, or will be, a Government grant, would you confine the expenditure of that money to the expenses of organisation?—No, I would not. I think that it is in the interest of the country—and it is only on that ground that the action of the Government can be considered—that exhibitors should receive some assistance in exhibiting—not wholly, and sometimes not even chiefly, for themselves, but for the sake of putting in evidence in other quarters of the world our national industries.

4997. Would you advise that they should have grants towards the expenses of transport?—I think that would have to rest as an organic detail with the Commission, subject to any reservations the Government might make in making the grant. But there are cases in which I think transport would be a very important point, whether it was sea or land transport, in my opinion; for instance, if you were to go to a distant point like Sydney.

4998. If you look at exhibitions merely from the point of view of the benefit which they confer on industry and commerce, and leave out the political considerations, do you not think it may be said that some trades stand to gain a great deal more from exhibitions than others?—Undoubtedly; but we have in certain and many matters to view the nation as a whole. Some classes get more benefit out of taxes than others, but all pay taxes; and so with regard to other contributions.

4999. Then would you think it justifiable to spend money in a direction where only certain traders can get a direct advantage from it, whereas others would get very little?—You know you have put the most extreme case.

5000. Yes?—Even in that extreme case, I think, there are considerations which would lead me to say that I do, but, as a general rule, the case would not be so extreme. Taking the average case, I think it is the national interest to manifest the national capabilities.

5001. Turning to details, might I ask you whether on any given occasion, before deciding that you would apply for a Government grant in aid of representation on an exhibition, you have taken steps to find out whether exhibitors are likely to come forward?—Always.

5002. You have always found out that there will be exhibitors?—Always; I will not say to what extent, but that there was an opening for such an exhibition on the part of exhibitors in this country undoubtedly.

5003. You have felt their pulse?—Yes.

5004. When you have obtained the promise of a Government grant, and it had been decided to go in for a particular exhibition, have you found that manufacturers have come forward spontaneously and volunteered to exhibit?—In many cases.

5005. Or you have for the most part obtained exhibitors by inviting people to come forward?—In many cases we have done that. But alertness is not always a national characteristic, and we have had a large amount of work to do by notices, information, etc., in order to obtain exhibitors.

5006. Do you find that, generally speaking, the mercantile community in England is very alert on the subject of exhibitions?—My own reading of the situation is this—that very old-established houses, with a connection of their own, for which they have paid in forming it, are sometimes not disposed to do that which makes a highway for large numbers to come to the same terminus and share profits; and those houses have not always been too disposed to co-operate. I am in favour of the larger policy of making exhibitions, if they are to be useful at all, accessible to the general body of manufacturers and traders, large and small.

5007. I think the first exhibition which you helped to organise was the Antwerp Exhibition of 1894, was it not?—I think it was.

5008. And the last, the Milan Exhibition?—Yes.

5009. Did you find that there was any greater reluctance or any greater keenness in the case of Milan than there was in the case of Antwerp? Have people got tired of exhibiting since you first began to organise exhibitions?—I should say the feeling is much the same in both. I do not think the cases are quite parallel. Antwerp was not on the scale of Milan, and at that time perhaps the *entente cordiale* with Belgium was a little closer than (unfortunately, I think) it has been more recently.

5010. Have you found that the state of trade has much effect in influencing people to exhibit?—In the case of Milan, trade was so brisk, or was becoming so brisk, that manufacturers were occupied, and the time, for that reason, was even more inadequate than it otherwise would have been. Several exhibitors did say, "We are too busy to throw ourselves into it at this late hour."

5011. May I develop that, and put it to you that the brisker trade is the less need there is for exhibitions?—We know that trade moves in cycles, and you cannot keep it always brisk. Some attribute this to sun spots, but whatever it is—perhaps spots in men's minds—those things influence trade, whether we will or not, as does over-production, etc.

5012. With regard to the permanent organisation that you were indicating to the Committee, I think you said you would like to see different chairmen on different occasions?—I said I thought that the body, whatever it was, should elect its chairman. I think that is the best mode of selection; but if it were felt that the President or a high official of the Board of Trade should be the official chairman I should raise no objection to that; on the contrary, I should welcome such active co-operation. Still, I favour election as a principle.

5013. What would be the permanent mainspring of that committee? There would have to be somebody who would really do all the work, would there not?—Probably a standing executive committee with certain limited powers of action, and with its chairman either

elected or official, and probably, as Sir James Kitson suggested, with its permanent secretary.

5014. (*Mr. Harris.*) Following up that same point, you explained to the Chairman that the basis of the permanent organisation was to be Chambers of Commerce generally, I think?—I should rather put it in another way—that the basis should be commercial, and through the Chambers of Commerce.

5015. Could you, without having a Government or Departmental official, have that standing committee which you have just mentioned to Mr. Ramsay?—Do you mean standing alone?

5016. Yes?—I think it would be quite possible. The case of Brussels shows it, I think, on a small scale. Lord Curzon said: "I will trust the Chamber of Commerce to administer this small grant, and I should like to have in that case the personal services and assurance of Mr. Dredge and yourself in seeing that carried out." I think the same with the permanent Commission. The Government might say, "Very well; we will entrust you with these powers, subject to certain control and regulations."

5017. Then it would be no longer a committee of the Chamber of Commerce or of a series of Chambers of Commerce?—No.

5018. It would be almost a standing Royal Commission?—No, a standing Commercial Committee, which is a very different thing.

5019. A permanent Commission, then?—Yes, that is the best expression.

5020. That is your idea?—That is, I think, my idea.

5021. Would you mind telling us what produced the original appointment of the permanent committee of the London Chamber of Commerce for exhibitions? Do you remember?—We have a dozen standing committees. I do not know how the Exhibitions Committee originated, but probably from the time of the Antwerp Exhibition, and as a result of it. What was temporary then for Antwerp probably became the Exhibitions Committee, but I do not remember really that exact point.

5022. Do you happen to remember whether that committee has ever declined to take part in any exhibition?—Yes. May I say that it has always regarded them favourably, and, if it was not able to actively co-operate, we have always shown good will, published information, and helped as far as we could, and induced people, even if we did not appoint a Commission, to help the exhibition. We have done that in the case of the Jamestown Exhibition at the present time, and others I could mention. We did what we could in the case of the Jamestown Exhibition, but we did not participate. The same with the Dublin Exhibition and many others.

5023. With regard to Milan, we have been told that the British exhibits were scattered about in such a way that the whole thing was a fiasco, that space was wasted, and that effort was wasted; but I understand you to say something very different?—The word "fiasco" is absolutely inapplicable; it is a quite uncalled for reflection on the work which was done. That there was some distribution, which was rendered inevitable by the small time at our disposal, and the inability to erect our own pavilion, if we had thought proper, and so to aggregate our exhibit, is beyond question. But it was on a very small scale, and no fault of ours, but caused by the regulations or circumstances over which we had not control, and the alleged statement is a most exaggerated and unfounded description of the real state of affairs.

5024. On the whole, do you look upon Milan as a success, in spite of the fact which you stated—that our formidable competitor, Germany, did better in the higher awards?—Germany did slightly better. My answer is, I do, on the whole. I should just like to give one or two figures upon that point, as it has been mentioned. We got 3.34 per cent. of the awards made, and Germany was a portion of a decimal point higher, but we had most gold medals.

5025. (*Mr. Algernon Law.*) You say you were asked by Lord Curzon to undertake the formation of the Brussels Commission. Was that in an official letter or not?—Certainly in conversation, and, I believe, by an official letter. I have here the report of the Chamber for 1897, which contains these words:—"The Chamber received from the Foreign Office the compliment of being asked to form the British Commission for the Brussels International Exhibition, 1897, together with the suggestion that Sir Albert Rollit should be the president and Mr. Dredge the executive commissioner, both of which positions were accepted," and so on. I think there was also a further communication to that effect, but I would not be sure.

5026. With regard to the Milan surplus, you are going to return about half, and at the same time you have already apparently returned a proportion of the space charges; therefore, the actual surplus, if you had not paid those charges, would be still larger?—Yes.

5027. What would be the amount of the actual surplus if you had not paid the space charges?—It might have made a difference of another £500.

5028. Not more than that?—I am supposing that. We dare not deal with it too largely; we did just what we said we would if we could.

5029. With regard to the Brussels Exhibition of 1910, you have done no more than merely discuss it among yourselves, I understand; you have not entered into any pledge with regard to the participation of the London Chamber of Commerce?—No, not any pledge, but we have been ascertaining what is proposed, and so on, which takes a good deal of time, and we have resolved to help if needful. There is plenty of time, at any rate, in the case of this Brussels Exhibition.

5030. In forming the organisation to which the grant for Milan was eventually made, did you find any reluctance on the part of provincial manufacturers and provincial Chambers of Commerce to take part in the organisation?—No. I do not know that I have ever heard of any objection to join the Commission or any Committee or any other body, and, not overtly, of any objection to exhibitions; but I know that feeling exists to some extent.

5031. Or to the fact that the London Chamber of Commerce were taking the lead—because we have heard in evidence of such reluctance?—There is not a shadow of a pretext for any such suggestion. We were asked by Lord Curzon to move originally. We have received the thanks of the Government for doing so, and everybody has been most willing. When we have had a Commission we have had the Secretary of the Associated Chambers as one of the honorary secretaries.

5032. In connection with Milan we have certainly had it in evidence?—I never heard of it, and we had many representatives of the Chambers of Commerce on that Commission.

5033. With regard to the Paris Exhibition and your being placed on the Furniture Committee, did you object to that, and say you knew nothing about furniture?—No.

5034. Did you always attend the committee meetings?—Yes, generally. We had a good chairman in Sir George Birdwood, and I got to know something about it in the end, so it was educative.

5035. (*Mr. Wilson Fox.*) With regard to the length of interval which should take place between exhibitions, you said that there were certain exceptions which make frequent exhibitions difficult. Might I put one or two to you, as they have been put to us? I am now simply upon the question of the difficulty of any organisation getting up a fully representative British exhibit. Take, in the first place, the textiles. They have been shown from time to time, but the cotton manufacturers of Lancashire have themselves no personal interest in showing, because they sell their goods to merchants. They may show for patriotic reasons, and, though it will cost them a great deal of money to get up a representative exhibit for Lancashire, they will be prepared to do it occasionally. Still, their class of manufacture is such that they are not likely to be helped in their business by their goods being shown at any foreign capital. This is my question upon that: In the first place, you will not get Lancashire to help you to get up a representative exhibit if you show too often, and, secondly, if they do not pay for it your organisation will have to, and that will come very heavy on you. Taking that trade as an example, is that not one reason why we should not have exhibitions too often?—I agree to your first proposition, I do not disagree from the second, and I assent to the third. Generally, in that way, I agree.

5036. I do not want to raise unnecessary difficulties, and I am only putting to you some of the main ones that are put to us?—I think, if I may say so, that it

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is a very fair question, and I answer it in that way, by agreeing in general terms.

5037. There is another class of trades which might be prevented from showing too frequently, namely, those which cost a great deal for their transport, such as heavy machinery?—Yes, I understand.

5038. There, again, if the trades themselves were not willing to show, and we showed too often, the organisation, whatever it might be, would have to step in and contribute towards the expenses of the heavy-transport trades?—Or not do it.

5039. Or leave them out, you mean?—Yes.

5040. But then it would not be a really representative exhibition of the whole of British industry if we excepted certain trades?—No, it would not; but I take it the Commission would in all cases balance the considerations. They might render some assistance, full assistance, or no assistance, both generally and in the case of particular exhibits.

5041. Then, thirdly, there is a class, as we know, of people who have not got an export business, and do not want one, and who spend their money, sometimes very largely, on advertising at home?—Yes.

5042. So that that is a third illustration which I put with regard to the difficulties of holding exhibitions too often; or, alternately, if we do, we should have to contribute towards the expenses of those particular classes of industry in order to get them to join?—I agree.

5043. You have already told us—and I can quite understand it—of the difficulty of fixing on any particular period which you could lay down as a hard-and-fast rule, and of saying, "We shall not have an exhibition more than once in five years or ten years"?—I quite agree that if one came very closely following another, that would be one reason for not participating, but there would be cases in which you could not, I think, act solely on that reason.

5044. You would agree generally, would you not, that care must be exercised to see that we do not have these exhibitions got up too often, in case British manufacturers should get tired of them?—I quite agree on all grounds, and I should assume that a Commission so constituted would be men of judgment, discretion, and discrimination.

5045. If I may say so, I am not at all against a permanent organisation, but there is one danger, it seems to me, in a permanent organisation, and that is, that if we had this organisation, with its permanent secretary, they would be rather keen to get up exhibitions, or to participate in exhibitions whenever they turned up?—I agree this may be a danger, in a measure, but the Commission would control.

5046. You have mentioned the question of awards. I know nothing about the awards, because I have never been on a jury, but I should have thought that in some cases it must be rather difficult out at a foreign exhibition for the jury, unless they have very special knowledge, to say whether one particular class of goods will be better than another. Take the case of mustard: unless you have real experts in a case like mustard or jam, it would be very difficult for a jury with 20 samples before them to say who should get a gold medal, who should get the *grand prix*, and who should get a bronze medal?—Yes, it would. My answer to that is, it is very difficult sometimes to give a verdict, but twelve men have to do it; and equally we select as far as we can, though, of course, with fallible judgment, those we think will be best able to deal with such cases when they arise.

5047. Speaking for myself, I should much rather be called upon as a juryman to say whether a man has stolen a pair of trousers than to say whether Colman's mustard is better than somebody else's mustard?—Take the Customs laws of France; whether peas are grown in England or in France is determined by *expertise* and observation. That is very difficult—much more difficult than what you suggest.

5048. As a matter of fact—and I am only asking for information—do you get real experts upon a manufacture of that character?—Certainly. We get the best men we can, and I think the work has been very well done. When I tell you that each juror received only £25, just to defray expenses, and had to come and do a week's, or 10 days', or a fortnight's work, I think you will see they deserved well of their country.

5049. It has been said by one or two traders who have been here—with what truth I do not know—that there is a tendency on the part of juries to give the awards to large firms who have made their names, juries being influenced rather more by reputation than by the class of exhibit which those firms happen to show at that particular time?—I will turn the proposition round. Large firms do sometimes claim awards on the ground of reputation; that was resisted stoutly at Milan, and the awards were given, after that question was raised, according to the merits of the particular exhibits. It was contended, because we got a medal at Verona we ought to have a medal at Liège, and so on. Firms go down in reputation and in their work. That consideration was pointed out, and such cases were resisted.

5050. May I ask you one question about the expenses? I want to know whether you think that Government money should be spent on anything more than organisation in this country, perhaps in the cost of transport to the foreign capital, and in the cost of putting up the buildings, and possibly in the cost of the people who look after the buildings and guard them?—I have answered that question practically, but I prefer to answer it again. I think that some such lines of limitation would be perfectly admissible and perhaps fair—I am uncertain at the moment. My general position is that it is the national interest—not merely the individual exhibitor's interest, but the national interest—to show our national industries and progress and advancement in applications of modern science to industry, and the like, and that if we do not do that, everybody will suffer, because it will be thought that England's wares are not as good as they used to be, and so on. Therefore I think that it is a national matter, as well as an individual interest; but I think we must deal with it as men of business, and I agree that there are some general considerations which must be taken account of.

5051. Take as another instance the woollen and worsted trade; nobody down in Bradford wants to get up a collective exhibit, because the manufacturers there will get nothing out of it by showing?—I agree; it is so quite clearly.

5052. Would the central committee step in and say, "Now, look here, we must have a collective exhibit of woollens and worsteds in Paris, and if you get this up we will pay for it"?—I think they should do that, and I think a collective exhibit would be the cheapest and best way of dealing with the matter.

5053. Then another instance which you might put in the same category would be chemicals, would it not?—Undoubtedly. The more we show our chemicals and chemical products the better. You could not have found a more striking instance where we ought to exhibit.

5054. Of course, that is not a class of goods that would sell at an exhibition like pottery and glass, and therefore that requires consideration?—I think that is a matter for consideration. All these considerations are most important. If you have an adequate sum to deal with it, and reasonable time and Government sanction and good organisation, they would all be taken into account as a matter of course. But when you have to deal with things piecemeal to a certain extent, and under limited conditions, like everybody else in the world, you have to make the best of the materials you have and to do the best you can.

5055. My last questions relate to the organisation. In the first place, I understand that what you want is an organisation in this country for participation in exhibitions with some permanent element in it, so that we shall secure experience and continuity of policy?—Undoubtedly.

5056. Then we want an organisation sufficiently representative of commercial men, so that in no large section of the commercial community should there be jealousy?—Yes.

5057. You would agree, I suppose, that it should not only include the commercial element with that proviso, but that it should also include some independent men of well-known standing who would have no interest whatever in trade?—Some. It should include generalists and experts and specialists.

5058. Men who are well known, and who could not be said to be influenced by considerations towards one trade more than another?—I think that would be a valuable element, but not with too much of it, for social considerations or patronage.

5059. Then you would want a really good secretary?—Certainly.

5060. Now may I come to the exhibitions? We have heard complaints about the management of some of the exhibitions, and I hope you will not think for one moment that I am referring particularly to any of the exhibitions you have taken part in?—I am here to be examined; you may, of course, put anything to me you like, and I will try to answer to the best of my ability.

5061. I am taking the whole history of exhibitions for a number of years. We have had complaints that some of the traders have not had the civility which should be accorded them by the under officials. Who would you put in charge of the British section in a foreign capital? Would you put the class of man you put now—some distinguished gentleman of experience, whose social qualifications are sometimes more thought of than his business qualifications, perhaps; or, if not, what class of man would you put as controller of the exhibition?—I should not put anyone there for mere social considerations certainly. You want a man who has some knowledge of exhibitions generally and of commerce, and of men, and who would know how to deal with men. If I were to take the case of Milan, I think we had a good man in Mr. Cundall, who represented us there, and I think he had charge locally in the case of Brussels.

5062. Would you have a permanent man, do you think?—No, I do not think I should, because the language of the country in which the exhibition is held would be an important element and other circumstances, too.

5063. If you did not have a permanent man, probably he would not have had experience of the last exhibition?—That is so; but the language is so important. We selected Mr. Cundall because he knew Italian. I think that is a point of primary importance.

5064. It would not be possible, I suppose, to have a really high-salaried man as secretary of the organisation in London, and transfer him to manage the exhibition?—No. You want someone good at both ends both before the exhibition and when it is opened, and I think you would have to rely upon getting such men. I may say that I do not think there is any ground in any case I have heard of for charges of incivility or of incompetence, certainly not at Milan.

5065. I was not talking about the head man there, and I have not heard that about the Commissioner. The head representative of the Commission seems to me to be a very important person?—Yes, the chief representative in the foreign country individually is so.

5066. Because he has to look after so many of the social functions and amenities between foreign nations and ourselves, and he has also got to control all the business of the whole of our organisation?—Yes; but I do not think I should give primary importance to social considerations—although they would be one element.

5067. He is a difficult man to pick up from time to time, is he not?—Yes; but one has found them.

5068. Still you do not think you would have a permanent man of that sort?—We had a very good example of one in the gentleman you have at the Board of Trade now, in the Railway Department there—Sir Herbert Jekyll. That is the type of man you want, but he must have exhibition experience.

5069. Then about the under-staff. We have had some complaints from traders in respect of certain exhibitions that they cannot get attention paid to them, and that when they are put upon by the officials of the foreign country where the exhibition is taking place our people do not support them sufficiently, or that they do not get their space properly arranged. There have been complaints that our sections are under-staffed, and sometimes I have no doubt that being overworked they get rather short shrift from the under-officials?—I have not heard of such things in the case of Milan, but I should not be greatly surprised at it. The railway arrangements, terminally and in transit through Italy, broke down completely, through shortage of waggons and the like; and the confusion and delay were beyond complaint. I can quite imagine any man who was worth anything getting out of temper at times in dealing with such a state of affairs. But I do not think it so happened; at any rate I have not heard of it.

5070. I put this to you, that it would be rather a matter for the permanent commission to look after in the future, because these complaints we have had on that point are not infrequent, and they relate to all the exhibitions, including the large ones such as St. Louis and Paris?—I will accept that as a fact, of course. It ought to be prevented.

5071. (*Sir Swire Smith.*) There are just one or two points upon which perhaps you might make yourself a little clearer. With regard to the organisation, I suppose you would say that it is not wise that we should wait until an exhibition is about to be determined upon before we make that organisation?—Yes.

5072. In view of the possibility of exhibitions being started in any country, is it desirable that the organisation should be prepared beforehand?—What we ought to have is a sort of Standing Intelligence and Organisation Committee with regard to exhibitions.

5073. How would you form that Intelligence Committee?—I think that its basis, as I have said, should be commercial, that there should be the addition of some representation of Government departments, of experts, of specialists, and of men of general information and culture who would be able to assist. It should have a standing committee with its chairman and secretary when itself was not in session, and they should get information; and when there was an intention to participate, or a likelihood of participation, this Intelligence Committee should be called together to consider whether anything should be done, as to forming a Commission, etc.

5074. So that the sooner the organisation of this movement is begun the better in that sense?—I think so. But I do not mean an expensive department. I think the cost of such a committee would be trivial, and ought to be trivial.

5075. Practically the secretary could call the organisation together when necessary?—Yes—something like the Advisory Committee of the Board of Trade, on which some of us have served.

5076. (*Chairman.*) Who should appoint it—the Board of Trade?—No. I said something like that Advisory Committee in the shape of being honorary and not paid members and so forth.

5077. You do not get payment on the Advisory Committee of the Board of Trade?—That is so, and I said there should be no payment. I should say the men should take the position honorarily.

5078. How would they be appointed—by the Board of Trade?—No; that would be bureaucratic.

5079. Would they have to be appointed by election?—Yes, preferably by the Chambers of Commerce.

5080. (*Sir Swire Smith.*) I presume you would draw up your constitution to begin with, or the committee, say, might probably do it?—I think there would be no difficulty with regard to the Chambers of Commerce—and I say that should the basis—determining at a meeting the general constitution, and then conferring with the Board of Trade and arranging the system on which the Standing Committee should be formed and proceed.

5081. (*Mr. Harris.*) I rather gathered from one of your answers to me that you admitted the Government should take the first action in the matter?—Do you mean when an exhibition is approaching, or on the formation of an exhibition?

5082. You think this committee should have a commercial basis, but you have rather left it hanging in the air, and I want to get at who is to take the first step. (*Sir Swire Smith.*) That is just the point I want. Supposing an exhibition were likely to be held in any country, and that England were to be invited to take part in it or to be represented there, what should be the authority to take it up?—My opinion is that it should be, in the first instance, a permanent Standing Committee. In regard to the first formation of the committee, I think the Board of Trade might take the initiative and summon members of Chambers of Commerce, members of previous Commissions, experts, and any others whose names commend themselves to the Board, for the consideration of the subject, and that this committee should be formed with power to appoint a standing executive committee, the organisation being perfected in the usual way by rules and regulations.

5083. You did not seem to speak very favourably of the organisation of the German system?—It is bureaucratic, but it carries the advantage that if they act they pay, and pay well.

5084. We hear of the great efficiency of the German

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exhibits in the different exhibitions?—Yes, I agree; but we are not such a bureaucratic country.

5085. Is that not due somewhat to the power they have of getting the best which their country can send?—Undoubtedly. Some people say their conscription contributes also.

5086. Do you not feel that we are never sure in our exhibits of getting the best possible representation of our different industries?—I think the best mode of doing that would be through the Chambers of Commerce primarily; that would be better than through the Government, or a Royal Commission.

5087. Would you prefer the method you suggest to the German method?—I should; but the presence of some Government Departmental members upon that body would secure, I think, the advantage of both systems.

5088. You are not in favour of the Government providing all the money for the expenses of an exhibition, are you?—No; not all.

5089. How would you provide the balance?—I think the Government should make an adequate grant, and exhibitors contribute for space, etc., and then there might be guarantees given, as was the case with Brussels, and contributions, and surpluses from economical administration, which we ought to have had in hand now.

5090. Would you not say that if Great Britain does enter upon an exhibition at all, it should go into it as well equipped financially as any of the other countries?—Undoubtedly.

5091. And there is no source from which that money can be provided but the Government?—Practically none, except voluntarily and by guarantees, and except the advantage of honorary service which Germany does not get in her system.

5092. It is very necessary that we should in every exhibition send our best?—Certainly.

5093. And your method is that you could get that best through the Chamber of Commerce?—Yes, the Chambers of Commerce, not one Chamber only.

5094. (*Sir Isidore Spielmann.*) You have said that you are in favour of collective exhibits?—Yes, as an element.

5095. Do you advocate that on your International Exhibitions Committee of the London Chamber of Commerce?—Certainly, and attempt it.

5096. Have you succeeded in any measure?—We had, I think, a collective exhibit at Brussels—perhaps one or two.

5097. Of what?—I think of textiles, but I am not quite sure; I am speaking now of 10 years ago. We certainly attempted it in the case of Milan, but we found that, according to the regulations, textiles as such could not be received, but only textiles in course of production by machinery. We could not get a collective exhibit, naturally, so as to show the courses of production, where the machines might differ largely; it would have been too unwieldy.

5098. Do you advocate on the Exhibitions Committee the formation of collective exhibits wherever possible?—I do; but it is full of difficulty owing to the competition between commercial houses and so on.

5099. (*Chairman.*) I am afraid I am rather dull, but I am still hazy as to the actual proposition you make about the Commission. Do you want to replace the present commissions of the London Chamber of Commerce by a body constituted on a larger basis?—The London Chamber of Commerce, by organising commissions within and without itself, has done most valuable work, and when no one else has been doing it. I quite agree that if we want the best result from the whole country there should be a wider and more representative organisation; and though we have always taken with us—and they have come with us readily—the provincial and foreign Chambers of Commerce, I think any new organisation should be founded upon the Chambers of Commerce of the country generally, with additions such as I have mentioned.

5100. That is, I suppose, the Government in the first instance would approach the Chambers of Cemmerce?—No, I do not think they would necessarily do that. I should have thought, and I do think, that the Government would approach naturally the London Chamber of Commerce, which has had the experience, has been doing the work, has returned surpluses, and so on. That, after all, is only a minor point, but I should have thought that was the channel, with a view to the wider organisation.

5101. You think that the London Chamber of Commerce, having done the work in many instances——?—And having had the experience.

5102. And having done the work, as you say, most efficiently and well, it should organise this new Commission?—No, I do not say that. I think the initiative should be taken by the Government, but I think naturally—I should almost expect it—that the body which had been doing for the Government, originally at the request of the Government, this work should be the first body to be approached. Beyond doubt the ultimate body to be formed should be representative of all the Chambers of Commerce of the country. You have put the point to me, or else I would not have gone into it.

5103. Certainly, I want to get this from you; it is your views we want, not ours?—Very well; I say that is the course I should take.

5104. You think that through the Associated Chambers you could get this body chosen?—I do not doubt it; or rather that the Government, in co-operation with us at the London and other Chambers, or if you like it with such help as we could render, could achieve that result.

5105. There you come back to the Government, you see. The Government does a good many things on the advice of other bodies, Chambers of Commerce, for instance, which it continually asks and gets?—I will put it in another way. If it was suggested to us that, having regard to what has been done and to our experience and services, we might summon a meeting of the Chambers of Commerce and others at the Board of Trade or elsewhere with a view to some such organisation, we would readily do it, but I do not want to put that as a condition at all. If the Government or the Board of Trade prefer to call such a meeting, I think it would naturally confer with us, perhaps, first, and we should very gladly co-operate, and give every information and assistance, of which we have much means, owing to our long experience.

5106. It does strike me as a little awkward. Where you want to have a permanent Government grant one would think that the Government or some department must be responsible to Parliament for the appointment of this body who will administer the grant?—Not *quâ* appointment. I do not think it would be desirable that it should be official, or Governmental, or departmental, or bureaucratic; but naturally, if such a thing is considered desirable upon your report, the Board of Trade would take the initiative in carrying it out. If they thought, having regard to the experience we have had at the London Chamber, we might do that in the first instance, we should be very glad to take any course which might be suggested, but I do not press that at all.

5107. I could not quite understand whether you wanted it to be on the lines of the Advisory Committee of the Board of Trade. I think they have got one for the Marine Department now?—Yes.

5108. You have had great experience now on the Advisory Committee, and you know that they spend money in having commercial inquiries made abroad and so forth?—Yes.

5109. I did not know whether you thought that it would be in that same form that the Commission or the Committee should be appointed?—I think it should be more autonomous than a mere advisory consultative committee, and that it should have for exhibitions more money to deal with than in my experience, up to the present, the Advisory Committees have had.

5110. (*Mr. Wilson Fox.*) You said you would call the Chambers of Commerce "and others" together?—Yes, I meant the general class you indicated.

5111. You have put it into my mind that this association would have to promote the showing of the exhibits of various industries; should not the public bodies representing some of those large industries, like the Iron and Steel Institute, the Master Builders' Association, and so on, who are experts in particular lines of business, be represented on it?—Certainly; and if it were thought desirable that they should take part in summoning such a meeting, by all means it might be so. I do not want to put the London Chamber unduly in the front of the matter at all.

5112. You said "and others," and I wanted to follow

that out?—Certainly, I said "and others," because that covered the case you put to me and others.

5113. (*Sir James Kitson.*) Is the London Chamber of Commerce in the Association?—Yes, and subscribes more than any other Chamber.

5114. Then would not the Associated Chambers rather be the body than the London Chamber of Commerce?—There is this difference, that the Associated Chambers of Commerce have not done anything with regard to exhibitions, beyond their secretary being one of the secretaries of the organisation and having individual members. You want, I think, to begin with, some practical experience of the work.

5115. Still, they would include your experience in the Association?—I do not want to put the London Chamber of Commerce Commissioners invidiously to the front, but still, as a matter of fact, we have done the organisation work, and then administered the grants, and done it successfully, as I think; and therefore I consider we are naturally the channel—but that is a very secondary consideration. I think, if I may say so, the suggestion of Mr. Wilson Fox that some such associations as those which have been mentioned should be associated in any movement is a very excellent one. *Sir A. K. Rollit.* 18 April 1907.

5116. (*Chairman.*) Then it comes to the summoning of these different associations?—I think it comes very much to that.

5117. And having the discretion as to whom you should summon and whom you should not?—I think so.

5118. On whom would that discretion rest?—I think practically with the Board of Trade, after conferring, as I would suggest, with the London Chamber and its Standing Committee, and other bodies.

5119. You do think that that would be usefully done by a department, after conferring with you and other Chambers?—Exactly.

5120. That seems more practical?—I wish it to be clearly understood that whatever the London Chamber of Commerce has done—I take exception to some things that have been said and suggested; but subject to that, I do not want it to take any invidious primary position, though I think there should be a fair remembrance of what it has done, and originated, when nobody else was doing the work.

Mr. Arthur Greenwood, called and examined.

5121. (*Chairman.*) You are chairman and managing director of Greenwood and Batley, Ltd., are you not?—I am. *Mr. A. Greenwood.*

5122. At what place?—Leeds.

5123. What do you manufacture particularly?—We are general electrical and mechanical engineers, and we are manufacturers of machine tools.

5124. You have had a good deal of experience in connection with exhibitions, I think?—We have.

5125. You were at Moscow in 1872, at Philadelphia in 1876, at Paris in 1878, at Sydney in 1880, at Calcutta in 1884, at Melbourne in 1888, and at Paris in 1889?—Yes.

5126. The goods you exhibit, I understand, are engineers' machine tools?—Principally.

5127. What was the value of them, at the last exhibition, say?—At the last exhibition we had one machine tool which we exhibited there which alone was worth £10,000; but, generally speaking, £2,000 or £3,000 would be about the average value of our exhibits.

5128. Have you had any increase of business with foreign countries which you can attribute to exhibiting?—It is most difficult to trace that in our business, but I think we may have had a slight increase.

5129. Have you had any actual disadvantages that you can trace—from being copied, for instance?—In the early stages of exhibitions there is no doubt the English manufacturers did suffer a great deal, because, speaking of some years ago, England was practically the only place where machine tools were made before the trade was developed on the Continent. There is no doubt that our exhibits then were very much copied. I remember, both at the Exhibition of 1851 and at the Exhibition of 1862, in England, they were very much copied.

5130. Do you attach value to the awards which you obtain?—No; I do not think that the awards help us at all in selling our class of goods.

5131. I suppose you have obtained a good many?—Yes, we always get awards, generally the highest.

5132. Do you not put them on your billheads?—No. With the class of business we have, I do not think that would have any effect. It is all right if you are making small articles which are sold retail, and so on.

5133. Have you ever bought from British or foreign manufacturers from having seen their goods exhibited at exhibitions?—Yes. I have often found quite new things exposed at exhibitions, both English and foreign, and have bought pretty often machines we have seen exhibited.

5134. In your proof you give an interesting instance at the Antwerp Exhibition, where you saw the Delaval steam turbine?—Yes. I was a member of the jury at the Antwerp Exhibition, so I was there a good deal at that time. I saw the Delaval steam turbine there, which was really exhibited then practically for the first time. It was exhibited, I believe, in Chicago the year before, but it was not in a complete state then. I was very much struck with it. I followed the business up, and the making of these Delaval steam turbines has now become a very large branch of our business. There is no doubt that we have seen at different times, notably at the last two Paris Exhibitions, great improvements exhibited by foreign manufacturers, principally in cutting metals both for finish and high speed.

5135. I see you do now refrain from exhibiting, because the Paris Exhibition of 1889, which is a good many years ago now, seems to have been the last exhibition at which you exhibited?—That is so.

5136. Have you refrained from exhibiting in recent years on account of the cost?—Very largely; the cost is such a fearful tax upon manufacturers.

5137. You mean in the case of your machinery?—Yes. To send this heavy machinery abroad costs such a fearful lot of money that after the Paris Exhibition of 1889 we got rather tired of it. We found that our exhibition account was getting very heavy, and so we refrained from it. Another thing that has made us refrain from exhibiting has been the very poor shows which have been made by English exhibitors of recent years in comparison with what foreign exhibitors have made.

5138. You did not like to take part in a British show which was so inferior to the foreign sections?—Yes. I think a great many people have the same feeling, that the exhibits recently have not been quite worthy of England. I am speaking, of course, of my own business, the engineering business, more particularly.

5139. Have you been to the recent exhibitions?—Yes, I have visited very many.

5140. You have seen what is shown, but you do not go to the great expense of showing yourself?—I was at the last Paris Exhibition and I was at the one at Milan a short time ago.

5141. This is outside your proof, but what did you think of the Milan Exhibition; did you think the British section showed well?—I thought the British section was quite unworthy of the country.

5142. In everything?—In everything, yes.

5143. Do you think that anything might be done, if there were a permanent organisation, to minimise the trouble and cost; and do you think that in that way we should get better exhibits from this country?—I think we should get better exhibits in the first instance if the cost were reduced. It is a very great tax for any man in the engineering business to send over a large machine. The amount of money that he has standing idle in the exhibition is in itself a very heavy tax, and then he has got possibly hundreds or thousands of pounds to spend in taking the machinery there, putting it up, setting it to work, and so on. I think that those expenses, if not entirely borne by the Commission, ought to be borne by it to a large extent.

5144. Because you cannot get your money back, either by selling those machines or getting orders there?—I do not think you can. You see it is not a small article that we sell, and the mere fact that I am exhibiting a very large machine tool does not create a

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demand for that machine tool—it only shows people where it can be bought when they are in want of such a tool.

5145. It shows where it can be bought, and that it is a very good one, I suppose?—Yes. If you are making corkscrews, or small articles of that kind, of course you create a demand by exhibiting them.

5146. I gather that you are not in favour of this country holding aloof from international exhibitions?—I think we cannot afford to do so; I think that would be a serious matter. We look upon exhibitions as a cost that we are bound to incur, and I think that if we hold aloof from exhibitions we shall be rather left out, particularly having regard to the reports that are given by the Commissions, which visit the various exhibitions. There are, as you know, Commissions appointed very often by foreign Governments, and there are Commissions appointed by various institutions; they report, and if they do not see English manufacturers well represented there, I think that is very much against us. In fact, I have found that so. When I have been on the Continent selling my own things, people have said to me, "Why don't you exhibit? The German people are exhibiting, and the French people are exhibiting," and so on.

5147. What would you suggest to us as a possible means of getting such firms as yours to exhibit?—I think, to begin with, that the exhibitors ought not to be put to any expense, particularly as regards space and power. In many exhibitions we have to pay for space and power, and that seems to me to be a ridiculous thing. When we go to the expense of locking up £5,000 or £10,000 for six months in an exhibit, we ought not to be bothered with expenses of that kind.

5148. The cost of space and power?—Yes, and I think carriage, too.

5149. You think you ought to have carriage?—Yes. I do not know whether you are aware of the fact, but in connection with the recent St. Louis Exhibition, which unfortunately I did not visit, they actually sent representatives over to England and offered, on behalf of the Commission, to pay carriage from England to America.

5150. Was that the British Commission?—No, the United States Commission for the exhibition; they offered to pay carriage so as to get a good show there.

5151. (*Sir Swire Smith.*) That would be for specialties?—Yes.

5152. (*Chairman.*) And that even did not tempt you?—No, it did not. As a matter of fact, we had not very much trade in America.

5153. Were you at the time doing a great business here?—Yes, we were very busy.

5154. You had not time, I suppose, to show?—At the time of the St. Louis Exhibition we were excessively busy. We did think of exhibiting at one time, and, of course, the inducements were very great because they offered to pay the carriage on the machines; but we were so busy, as a matter of fact, that we could not prepare what I proposed to exhibit, so we did not show; otherwise I think I should have taken advantage of that offer. Then I think we ought to have some selection of exhibitors.

5155. By whom?—By the authorities here.

5156. For that would you have a Royal Commission, or some body of that sort?—I presume it would be a Royal Commission. I do not want to say anything disrespectful of Royal Commissions.

5157. You can here?—I see an enormous number of gentlemen's names on the Commissions that do not do very much good. What should be at the disposal of the Commission should be a committee of experts who should pass the exhibits. I would make it a great privilege to send an exhibit abroad to a foreign exhibition.

5158. You would rather imitate the German system then?—Yes, I would.

5159. You know the German system, I suppose?—I do not know it in detail, but I know that they do that.

5160. You know the broad feature is that the Government, through its Commission, do exercise great power as to who should send and what is to be sent?—Quite so. I think we ought to do something of the sort. Some of the exhibits that we have had in some of the exhibitions are not creditable to us.

5161. You are speaking, I take it, of the exhibitions that you know of yourself?—I am speaking generally in that respect. If the Government assisted the exhibitors in expenses they would naturally be entitled to have some say as to the exhibits sent out. That seems to be reasonable.

5162. Would you prefer a Commission appointed by the Government, which is usually called a Royal Commission, or a Commission acting by the choice of the Chambers of Commerce, and quite independent of the Government, except that they would want Government money, of course?—They would want Government money. Do you mean they would be selected by the Chambers of Commerce.

5163. By the London Chamber of Commerce or by the Associated Chambers?—That would be better than the present system; but surely the Royal Commission might select a committee.

5164. You would see no objection to a Royal Commission if they got the best men on it?—Exactly.

5165. That is, if they associated with themselves good experts and commercial men?—That is my idea. The Paris Exhibition of 1889 was very good in that respect. That was the exhibition in which the Government did not take any part, as you may remember, and there was no Royal Commission then. They had a very good committee in that case, and I think the exhibits were very well done; but, of course, it was an enormous cost to the exhibitors, because we had no assistance of any kind.

5166. That is, there was no assistance from the Government at that time?—That is so. I think that exhibition cost my firm about £4,000 in transport, in putting up our exhibit, and so on. That is a very heavy tax.

5167. And you do not think you got much of it back?—No, I do not think so. I think it does some good. I think it is a negative business. If you do not exhibit it does you harm; you cannot afford not to be there.

5168. Yours is an old-established firm, I think?—Yes, we have been in business over fifty years.

5169. Do you think that new firms are more interested in showing at exhibitions?—Yes. There is no doubt that new firms are; the very first thing they try to do is to do that.

5170. To get their space?—To get their space, and then to get reports and to be able to put awards on their paper.

5171. They do put their awards on?—Yes.

5172. But you do not?—You don't have to after a time.

5173. (*Sir Swire Smith.*) Your belief is that if we are to go in for exhibitions at all it should be done well?—It should be done very well indeed.

5174. And that the organisation for an exhibition should not be left simply to the trades?—No, it should not.

5175. But that it should be left to a general committee of experts of all trades, who would select the best goods of the country?—That is my opinion.

5176. How would you deal with the cost?—I should ask the Government, instead of giving a paltry £20,000 or £30,000 or £40,000, to put £200,000 or £300,000—a large sum of money—at the disposal of this committee.

5177. Whatever was necessary in fact?—Certainly.

5178. Your point would be that we cannot afford to be behind anywhere?—Exactly. If we are to be represented at exhibitions abroad, we must be represented as well, or better than foreign countries are.

5179. We cannot afford to take second position?—That is my feeling.

5180. Do you think that we have lost much in our national commerce through the copying of our goods by foreign nations?—I do not think so. I think what we have lost we have had the opportunity of gaining as well; there has been both give and take.

5181. If there is anything good to be seen, it is your duty to see it and to make the best of it?—Quite so.

5182. You have suggested in your remarks that it would be a very good thing that there should be a collective display?—Yes.

5183. Have you thought how that collective display could be got together? For instance, with regard to your own business, should there be a committee of experts who should select the things to send?—I think so. Take my own business, I should recommend not

so much the Chambers of Commerce, but our great institutions. We have the Institution of Civil Engineers, the Institution of Mechanical Engineers, and the Iron and Steel Institute; I should ask them to nominate the members of the committee.

5184. So that, so far as your particular industry is concerned, you would strongly suggest that the Iron and Steel Institute, and the Civil Engineers, and the Mechanical Engineers should have a strong voice in the selection of the governors in fact of this business?—Yes.

5185. And that where very large machines of a costly character are sent, there should be no hesitation at all about the Government paying for them?—That is my opinion.

5186. You might send a case of silk goods or of watches, or any small articles, at a very small cost, and they would still be a very interesting exhibit, of course, to all who could see them; but your view is that it is quite as important that the biggest engine that is made, if it is worth seeing, and if it has an educational influence, should be exhibited if necessary?—I do not think that we ought to let the people who attend these exhibitions assume that the Belgians and the Germans are the only people who can make big steam engines; and that is what they will do if we do not show any. I am thinking of some of the large exhibitions where their displays were very great indeed.

5187. Have you any view as to the formation of a body which should act together with these experts when an exhibition is about to be held—that is, would you wait for the announcement of an exhibition before you would form your governing body, or would you have that always ready?—I think I should wait. There is plenty of time when the intention to hold an exhibition is announced to get together a body of that sort, I think.

5188. We have been told that it often happens that the delay which is occasioned after it is first talked of till the people have decided as to what they shall do, has been so great that the best spaces have been often taken up in the meantime?—But surely if the Government are going to assist in an exhibition, the very first thing that would be done by the Government would be to see that space is available for British exhibitors.

5189. Then your view would be that this thing should be managed by the Government, the Government forming the nucleus, as it were, of a committee or of a body that should manage it?—Quite so.

5190. And that when this exhibition is talked of there should be an authority which could be appealed to at once, and which could call together all these experts?—That is it. I do not think that a special organisation made for this purpose would be of much use. I am afraid it would go to sleep when there was nothing going on.

5191. (*Sir Isidore Spielmann.*) Do you think that manufacturers are getting tired of exhibitions?—On every side I hear that. If you ask a man whether he is going to exhibit at so-and-so, he says: "I cannot do so; it is too much trouble and too much expense."

5192. What inducement should be offered? Meeting him in the matter of expense?—Meeting him in the matter of expense is one of the main points I lay stress upon.

5193. Apart from that, is there any other inducement that you could suggest?—Yes. I think, if the thing is taken up actively, and it is known that the English exhibit is going to be backed up by the Government and made a great success, you will find lots of people will be ready to exhibit. I think you will find many people are holding aloof because it has been nobody's business to look after this thing, and they have got tired of doing it at their sole cost.

5194. Do you think that the best class of manufacturers might be induced to participate?—I really do, because even recently some of the larger firms have exhibited. I will mention, as an instance, one firm in some way connected with my own business. Messrs. Armstrongs have taken a much more active part in exhibitions lately than they did a few years ago. They were driven, I suppose, into it by seeing Krupp and other foreign competitors putting up the enormous exhibits.

5195. I believe they participated in the exhibition at Liège recently?—They did.

5196. Were you there?—No, I was not. Liège was one of the exhibitions I did not visit.

5197. You did not visit it, then?—No.

5198. You referred to the poor impression created on your mind by the British sections at various exhibitions. Can you recall which they were?—Brussels, 1897, was one.

5199. That made a bad impression on you?—Yes. It was certainly unworthy of Great Britain; and the Antwerp Exhibition was very little better.

5200. Are you referring chiefly to the engineering section?—Principally; but I was really referring to the other sections as well.

5201. We have had here quite recently a witness who made a great deal of the machinery section; he said that it was very good at Brussels in 1897, but you are not of that opinion?—The British section did not strike me as being very good.

5202. Can you tell us of any exhibition where the British Industrial Section, particularly the machinery section, made a favourable impression upon you?—The Paris Exhibition of 1889 was the best exhibit of English machinery and engineering that we have had, I think.

5203. Since then, no exhibition that you have visited has shown a good exhibit of British machinery, would you say?—I think that at the last Paris Exhibition of 1900 the Machinery Section was not bad, but it was very small. There were some very good exhibits, but the section did not give one a good impression. I mean to say that, from a visit to that exhibition, and judging by the exhibits that were exposed there, you would not put England in front of the engineering trade.

5204. Were you at Milan?—Yes, I was.

5205. What sort of representation had the engineering trades there?—The ordinary engineering was very poor indeed, but the textile machinery was rather good. Of course, there was a very strong reason for textile machinery being good there—it is a great centre for cotton-spinning.

5206. You seem to have regretted not having been at St. Louis as an exhibitor; I think you said you were nearly induced to participate there?—Yes, we were.

5207. Would the duty have told against you in the matter of selling machinery in the United States?—Yes; as a matter of fact, the duty in the States practically excludes us. We used to do, years ago, rather a good business in the States, but now we do nothing. The duty on the things we make, which is 30, 40, or even 50 per cent., is so high that it is impossible to introduce them.

5208. If an exhibition organisation were established on improved lines, would you be disposed, as a manufacturer, to participate if you had certain expenses paid?—I would not only be disposed to exhibit, but I would advocate it amongst my other friends as well. I would like to see England properly represented.

5209. May I ask how often you would like to show at exhibitions?—I think if one exhibits well every five or ten years it is as much as you can expect people to do. I am speaking always of these exhibits which cost a lot of money. I am interested in other businesses, where we are ready to exhibit at any time, because it only means sending a glass case; that is all right, and one does not mind that.

5210. But, as regards heavy machinery, different considerations apply?—Yes; where you have to put the foundation in and build up these big machines the cost is fearful.

5211. Could you stand it every five years?—Yes; I think from five to ten years would be the period.

5212. (*Mr. Malcolm Ramsay.*) I suppose you would agree that, in talking about exhibitions, we have to consider them from two points of view, which cannot altogether be kept separate, but can be specified separately. First of all there is the international point of view and the cultivation of general good feeling, and, secondly, there is the purely trade aspect. Speaking from the point of view of trade, I do not quite understand the reasons why you recommend that we should participate in exhibitions. Supposing an exhibition is carried out under proper organisation and under good conditions, would you be inclined to par-

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ticipate because you think you would get business from it?—Yes, I think so; I think we should get business from it.

5213. Then you are in favour of it from the direct commercial side?—I am, from that as well as from the other point of view.

5214. You said just now that you thought a good many manufacturers, in your experience, were rather tired of exhibiting. Does that mean that they disliked exhibiting because the organisation did not give them a fair chance?—I think that is largely the reason.

5215. It is not that they have an objection in principle to exhibitions, and think they are not suitable means for pushing the trade of the country?—There are a great many people who do take that view, but I distinctly do not take that view. I think it is in our interest to exhibit and to show people that we are making these things.

5216. You think it is a good form of advertisement?—I do.

5217. I think you said just now that you would be glad to see exhibitors relieved of certain charges; for instance, of transport?—Yes.

5218. Would you apply that to everybody?—Yes, certainly.

5219. The consequences would be, of course, that the bill to the public would be very great—the cost would be enormous?—It would be great, undoubtedly.

5220. I think you mentioned £200,000 or £300,000 just now as the sort of sum that should be given?—Yes.

5221. Are you, as a taxpayer, willing to see the public pay £300,000 every five years for this purpose?—Yes; it is a bagatelle as compared with the commercial interest of this country.

5222. You think it is worth it?—Certainly it is worth it.

5223. And you would be in favour of relieving the exhibitors of those charges, not so much because they get direct benefit from it, but because of the national advertisement?—That is it.

5224. I suppose you would not go to the length of saying that as, from the individual trader's point of view, he stands to gain by getting a big sale from the exhibition, he ought to be assisted by the public?—No, I do not take that view at all. The assistance from the Government I should regard more particularly from a national point of view.

5225. It seems to me that it is much harder to justify it from the point of view of the individual trader, who may obtain business through exhibiting?—Of course.

5226. If you relieve him of his transport expenses, he gets a certain advantage as far as his individual trade is concerned which other people who do not exhibit do not have?—Quite so.

5227. There is some objection to the State paying for one trader what it cannot pay for another, is there not?—But every State trader will have an opportunity of exhibiting, and being assisted by the State.

5228. May there not be some industries which stand to gain much more by exhibiting than others?—I think there are, certainly. There are certain manufacturers who do gain more by exhibiting than people like myself, for instance. I think my own business gains perhaps the least directly.

5229. Because you have a large, heavy business?—Yes. But with anybody who can exhibit artistic manufactures in a glass case, I think it is quite another matter.

5230. I had that in my mind. Then one might apply a certain discrimination in relieving exhibitors of the transport charges?—Yes, because in many cases the cost would be very small. It is really only big machinery exhibits and things of that kind which are so very costly. If a man sends a locomotive, for instance, to an exhibition, the cost is tremendous; and so it is with marine engines, guns, and things of that kind.

5231. They are a special class rather, are they not?—Yes.

5232. In answer to Sir Swire Smith you spoke of the selection of exhibits. I suppose you, for your part, would have no objection to submitting your goods to the verdict of an expert jury?—Not the least.

5233. Even if they preferred in the end to take some other manufacturer's goods?—Not the least.

5234. Do you think the large firms would generally take that view?—I think they would—if it were a properly appointed committee, of course.

5235. I assume that?—It would have to be a committee not appointed by the Chambers of Commerce, or anything of that kind, because that would not do. It must be appointed by the big institutions which govern our engineering trade.

5236. That system answers in Germany, but we are more independent in this country, and some witnesses have expressed rather an objection to submitting themselves to a selection of that kind?—What I feel is that unless you do something we are going to run out of these exhibitions entirely, and then Germany—I say Germany, but I will say foreigners—will occupy the ground entirely; and I do not think that is wise.

5237. Any way, you would be prepared to stand or fall by the decision of the jury, whether they accepted your exhibits or not?—Certainly.

5238. (*Mr. Harris.*) Evidently, as you said in one of your replies, you take a negative view of the advantages of an exhibition. What would you say if there were an international agreement for the abolition of exhibitions; would you welcome that?—I should be very glad indeed to hear of that.

5239. That is to say, apart from the mere fact that you are forced into it by competitors, you would rather not exhibit?—I would rather not exhibit.

5240. In other words, you would rather not use exhibiting as a means of pushing your trade?—That is my view certainly.

5241. You have said that in the Paris Exhibition of 1889 Great Britain made one of the most satisfactory exhibits of machinery in particular?—Yes.

5242. Is that not an argument for leaving the British manufacturer to exhibit on his own account without any Government grant or help?—That exhibition was a very peculiar case, as I daresay you will remember. The Government refused to have anything to do with it on political and international grounds. It was in commemoration of the Revolution, was it not? It was very warmly taken up by the exhibitors generally.

5243. Was this their idea, "Now that the British Government stands out, we must just see what we can do"?—Yes, I think that feeling was very strong indeed. We had a very energetic chairman. I do not know whether you remember that Sir Polydore de Keyser was Lord Mayor of London at that time. He went into it with tremendous spirit. You know how much depends on how a thing is started; that was started with a very great flourish of trumpets, and it was a very great success, I think.

5244. Do you happen to remember what body managed it?—The Society of Arts had something to do with it. There was a general committee appointed, I think, by the Lord Mayor and the Council of the Society of Arts, and then an executive committee was selected from that.

5245. But you would not argue from that to the future, would you?—No. I think it did very well, but it would not do again; it caught on the first time, but I do not think it would catch on again.

5246. I have rather gathered from one or two witnesses here that machinery is one of the particular lines in which it pays men to exhibit at the present time; that is not your view apparently?—It is not altogether, but I think it is partially. Take countries like what Japan was—not what she is to-day, but what she was a few years ago. She always sent commissions round to these exhibitions, and they reported on the exports, and their reports were published in their own country. There is no doubt that that did influence a large amount of business from Japan.

5247. Do you think that you could trace a good deal of business in Great Britain to that?—Yes, I feel certain of it. Reports were given to the Japanese Government by the Commission, and that Government acted upon those reports.

5248. Are you able to say whether you think their reports were more in favour of Great Britain than of other nations?—That I could not say.

5249. (*Mr. Algernon Law.*) You said you would be ready to abide by the decision of an independent jury as to whether your exhibits, for instance, should go to an exhibition?—Yes.

5250. If, we will say, all the makers of machinery such as yours were to combine to share the expenses of

sending an illustrative example or selected exhibit on behalf of you all together, could you not then bear the expense?—I do not think so. I think my reply was based entirely upon the question of the Government finding the money for these things.

5251. Though you did do it by voluntary organisation in one instance?—We did in that one instance; but it is not a thing that we are likely to do every year, or every ten years.

5252. In the case of Paris in 1889, when there was no Government grant, you took part; but in the case of Paris in 1900, when there was a Government grant, you did not take part?—That is so.

5253. What was the special reason for that?—The special reason was that we were tired of it; the expenses we had been put to were too great, and the Government grant did not materially relieve exhibitors.

5254. And yet an interval of eleven years had elapsed?—In that case it had.

5255. You have mentioned the case of Messrs. Armstrong, who have now taken to exhibiting; but is not their case different from that of most makers of large engineering products? Do they not deal with Governments; and so is it not with the object of bringing their productions to the notice of Governments that they exhibit?—Yes.

5256. So that there is a special reason that actuates Messrs. Armstrong, but does not actuate locomotive makers, say?—That is so.

5257. Were you invited to take part in the Paris Exhibition by the Royal Commission, or their representatives?—We had the usual circular which was sent round.

5258. Was that followed up by a visit?—I do not think so; at any rate, I do not remember it.

5259. Were you invited to take part in the exhibitions at Liège and Brussels?—Of course we are invited to all these exhibitions.

5260. Was there any different procedure in those cases to that of a Royal Commission?—So far as I remember there was only a circular sent.

5261. There was no greater pressure in the one case than in the other?—No.

5262. (*Chairman.*) Do you belong to a Chamber of Commerce?—I am a member, I believe, of the London Chamber of Commerce and of the Chamber of Commerce of Leeds as well.

5263. I gather rather from what you said that you favour the management of these matters by the Institution of Civil Engineers and similar bodies—that is to say, by the people who have more to do with your particular line?—Yes; my reason for it being that they understand what they are talking about better than a Chamber of Commerce in that case. That is my only reason.

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5264. I did not quite understand whether you favoured a Government Department starting all these, and having the first management of the business—that is, appointing the Commission or Committee, or whatever it is?—That is my idea.

5265. You think the Government should do that?—It should take the iniative.

5266. Not the Chambers of Commerce?—No.

5267. The Government, you think, would be better?—Yes; I think the Government should do it.

5268. (*Mr. Algernon Law.*) You do not think the London Chamber of Commerce, from its experience of other exhibitions, is as well qualified a body to entrust the selection of a Commission or similar body to?—I do not think so, although of course it is a very representative body.

5269. But that is a view which has been pressed upon us?—I know the London Chamber of Commerce is a very representative Chamber, but I think it covers too big an area.

5270. (*Sir Swire Smith.*) It might be proper that they should take the organisation of the mercantile portion of it?—Yes, it might.

5271. But for a special section of engineering, such as yours, you would not think they are the proper authority?—No, although there is an Engineering Committee of the London Chamber of Commerce, and I believe I am a member of that committee myself.

5272. You would rather entrust it to the Iron and Steel Institute, to the Institution of Mechanical Engineers, and to the Institution of Civil Engineers?—Yes.

5273. That, you think, would be a much better authority?—Yes.

5274. (*Chairman.*) They are much better experts on such questions, of course?—Yes, they are expert bodies.

5275. And they are expert bodies to the highest extent in regard to your business?—Yes. We always know that Chambers of Commerce are influenced by the men who like to be before the public—*they* are the people who go to Chambers of Commerce.

5276. (*Sir Isidore Spielmann.*) Do you consider that the London Chamber of Commerce has sufficient influence to bring in important firms as exhibitors on the occasion of these international exhibitions?—I do not think they have. I think they can help, but I do not think they are quite so well qualified as other bodies. You see, they have not got much influence out of London.

5277. They have not the influence which a Royal Commission would have?—No.

SEVENTEENTH DAY.

Thursday, 25th April 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
The Right Hon. Sir James Kitson, Bart., M.P.
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Mr. E. Powell, Mr. S. F. Edge, and Mr. T. F. Woodfine, called in and examined.

Mr. E. Powell, Mr. S. F. Edge, and Mr. T. F. Woodfine.

5278. (*Chairman.*) (*To Mr. Powell.*) I think you are the chairman of Messrs. Humber, Limited?—(*Mr. Powell.*) I am chairman and managing director.

5279. (*To Mr. Edge.*) I think you represent S. F. Edge, Limited, who are interested in Napier motor cars?—(*Mr. Edge.*) Yes.

5280. (*To Mr. Woodfine.*) And you are the secretary of the Society of Motor Manufacturers and Traders?—(*Mr. Woodfine.*) Yes. May I place before you a letter which I have received from Mr. Govan (who is not able to come here from Glasgow to-day), in which he gives the views of his company on the subject?

Mr. E. Powell, Mr. S. F. Edge, and Mr. T. F. Woodfine.

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5281. What firm does he represent?—Mr. Alec Govan is the managing director of Argyll Motors, Ltd. He wrote me on the 22nd inst. as follows:—

"I have your favour of 16th to hand, and have been trying to arrange business so that I could be in London on Thursday, the 25th. Unfortunately, I now find this impossible. If the Government are prepared to subsidise exhibits at international exhibitions, then I think we ought to take advantage of this, and, in my opinion, this could best be done by a joint exhibit, for, as a rule, those exhibitions last for a number of months, and it would not pay any firm to have attendants there all the time. While I believe that exhibition is a good thing to secure orders for cars, I have a still greater belief in demonstration, and if it could be arranged to give demonstrations of the running of the cars, either in or outside the grounds, I feel that this would greatly assist sales. We do not find this so necessary in Britain to-day, as our cars are well known to the public, but when trying to introduce business in a country where they are comparatively unknown, I maintain that demonstration is almost, if not indeed necessary.

"In answer to the formal questions—

"(1) We have not exhibited at an international exhibition abroad.

"(8) Our goods have not been exhibited at an international exhibition, because they are usually open a few months, and attendants would require to be kept there all the time. Further, there is in nearly evrey country a motor-car exhibition, to which people interested in motor-cars naturally go. These exhibitions usually last from seven to fourteen days.

"(9) If the trouble and cost of exhibiting at exhibitions could be appreciably reduced, then we would be willing to exhibit.

"(10) It is our opinion that Britain should be well represented at international exhibitions."

5282. I understand you gentlemen have come here to give us your views about international exhibitions in connection with your subject of motor-cars?—(*Mr. Powell.*) That is so.

5283. Has your firm exhibited much at international exhibitions yet?—My firm, Humber, Ltd., are manufacturers of bicycles as well as of motors, and we have exhibited at most exhibitions for a great number of years past. Generally speaking, we do so through our agents in the various countries; through our Italian agent in Milan, through our Australian agent in Melbourne, through our Paris agent in Paris, and so on.

5284. Did you exhibit at St. Louis?—No.

5285. Why was that?—At the time that was held we were not doing very much in cars, and I do not think it would have justified the expense to have exhibited English bicycles.

5286. Have you received any advantage from exhibiting in the shape of increased sales of your goods?—I think, if I may be permitted to put it in this way, that when a business is young you reap very great advantage in bringing it before the public through the medium of exhibition; but when a business is well established like ours is I do not think you do reap so much advantage. At the present moment, for instance, it scarcely pays us to exhibit bicycles anywhere, even at a trade exhibition; but it does pay to exhibit cars, because the motor-car industry is quite a new one, and the exhibitions are crowded.

5287. You have special exhibitions in this country in your trade, have you not?—Yes.

5288. And, I suppose, in other countries too?—Yes.

5289. I am thinking of exhibitions which are confined to motor-cars?—We have those in practically all countries.

5290. Should you be satisfied to have only those exhibitions, or do you want to take part in the big international exhibitions?—I think if there are large international exhibitions held, our industry ought to be represented.

5291. Do you mean for the sake of the country?—Yes.

5292. Not for the sake of you gentlemen yourselves?—No, but for the sake of the trade of the country.

5293. At the exhibitions at which you have exhibited have you got a good proportion of the awards that were given?—Yes. We are a little bit sceptical as to the way in which the awards are granted at foreign exhibitions. We think if an organisation were established, such as you suggest in your formal list of questions, one of the things it should bear in mind would be to see that the awards are properly made.

5294. Do you mean that the jury do not exercise proper care in advising on the awards?—I would simply say that we have not had very much confidence in the way in which the prizes have been awarded. I think that would apply to English traders generally.

5295. What particular exhibitions have you in your mind? Could you give me an instance of that?—No; I should not like to do that.

5296. Do you attach importance to getting awards at exhibitions?—I think they help us in the countries where the exhibitions are held; but I do not think they help us very much in England.

5297. Do you put on a card the grands prix and the medals which have been given you at exhibitions, and do you send those cards to people who are likely to purchase your goods?—We leave this to our agent.

5298. I mean, do you put them on your cards in your own business now?—We have not done so with regard to motor-cars, but we used to do so with regard to bicycles.

5299. I know that; in fact, I was thinking of the bicycle; I did not know whether you did the same with motor-cars?—No, we have not done so in the case of the cars, so far.

5300. Is it that nowadays people know more about those things than they used to know, and therefore they like to trust to their own judgment and to their own experience in trying your cars?—I think you are about right there. In buying a bicycle, a man would look to a thing of that sort, but an Englishman would not buy a car because he saw a foreign medal on the list.

5301. He would want to know a great deal more about the car than that?—Yes.

5302. You think you will want to take part in these international exhibitions in the future?—Yes. What we think is, that if you had, say, a car section, and the exhibition could be run under a good organisation like that which is suggested in these papers, that organisation could take the space, allot it amongst representative English houses, instead of allowing Jack, Tom, and Harry to try to get it, and take charge of the whole of the arrangements—that is, not only take the space, but see to the erection of stands, and so on. We find immense obstacles in our way, and we have to pay very heavily, not simply for the space, but for the work of getting the stands ready.

5303. For the labour, do you mean?—For labour, materials, and so on. Obstacles are placed in our way; we all know what it means.

5304. I suppose there are difficulties because we are strangers in the country, to a certain extent?—Yes, that is so.

5305. And therefore we have to pay more?—Yes. That is why we almost invariably—in fact, invariably now—do it through our own local agent instead of direct. If we had a well-managed English section organised by the Board of Trade, we should probably exhibit entirely ourselves; and that is what we should like to see.

5306. You do not think the State ought to pay all these expenses, do you?—I think the expense would be minimised. I think the State might help to some extent, but still this organisation would save us such an enormous amount of expense that I do not think it would cost us probably half what it does now.

5307. Do you mean that it should organise the whole of the exhibit, take your goods over, and then take charge of them as soon as they get there?—No, I did not mean that. If the organisation first of all got the space allotted to us, then erected and decorated the stand (which costs much more than the stand itself), and got everything ready, so that all we should have to do would be to send our goods there, then we could take charge of the goods ourselves. I do not think we could expect any organisation to take charge of the goods, unless we had a collective exhibit, of course.

5308. You do not want to have a collective exhibit, I suppose?—I think it would be good for some trades. It would depend on the size of the trade. I think, looking at the proportions of the motor-car trade at

the present moment, we should do it individually; I am speaking of the English firms.

5309. Would you like a national arrangement, or a class arrangement; in other words, would you like to have your motors in the same buildings as the motors of other countries or in buildings close by, or would you like to have them put separately in a great national section?—I should like to have them exhibited in a class by the side of the foreign motors.

5310. You would like them put into a class, so that everybody could compare them?—Certainly.

5311. So that they could go straight from your motors to those of France, say?—Certainly; that is what I should like.

5312. We have had different evidence about that?—Yes, I know. There are advantages from a national standpoint in the other way, but I am speaking from our individual standpoint.

5313. In the case of machines of great complication like yours, you do think there is an advantage in the easy comparison of the machines of one country with those of another?—Yes, I do.

5314. Then about the transit; you do not expect all the cost of the transit to be paid, I suppose?—No; but I think the organisation suggested could arrange for a cheap transit. Of course we do get cheaper transit now.

5315. You have got cheaper transit?—Yes, and we save Customs dues and that sort of thing; but still I think an organisation of this kind could assist us even further.

5316. Did you exhibit at the Paris Exhibition of 1900?—Yes, bicycles.

5317. Only bicycles?—Yes, only bicycles.

5318. The motor industry was hardly in a forward state enough for exhibition then, I think?—No, not then.

5319. Were you satisfied with the arrangements under the Royal Commission then?—I had not anything personally to do with it, so I really could not say. It was left to our sales manager and our Paris agent.

5320. I suppose you do not want to have very frequent exhibitions?—No.

5321. How often about?—I think an international exhibition in an important country once in 10 years or so would be amply sufficient.

5322. In an important country, do you say?—Yes, I think so.

5323. Do you mean by that that you would not care to exhibit in an international exhibition more than once in 10 years?—If it were held at a shorter interval we probably should; but I think that holding such an exhibition once in 10 years would be very much better.

5324. It seems likely that in your branch of trade, as things go so quickly, you may have quite a different machine in 10 years' time?—There is no doubt of it.

5325. You admit that?—There is no doubt of it.

5326. You have not reached perfection yet?—Not anything like it.

5327. And yet you think about once in 10 years is quite often enough for an international exhibition?—Yes. The trade exhibitions would show our improvements; we could still have our annual trade exhibitions.

5328. That is, you could have your annual trade exhibitions here?—Yes.

5329. Do you find that foreigners come to those exhibitions in London?—Yes. We have a large number of foreign exhibits. I do not say that there are many foreign buyers who come to it, but foreigners connected with the trade come in large numbers.

5330. Now you are speaking of the exhibitions at Olympia?—Yes. Then our foreign agents come, and we do considerable business there with them.

5331. I suppose you sell abroad through agents chiefly, do you not?—Yes; sometimes through agents living in the country, and sometimes through English agents who export.

5332. I do not remember the figures at this moment, but you are exporting more than you were, I think, are you not?—Yes.

5333. The import is very much larger than the export, I think?—We are exporting more cars now than we were making three years ago.

5334. Are you doing any business with the colonies yet?—We are doing a large business with them.

5335. Are you doing anything with Canada?—We are doing a large business with Canada. We also send cars in large numbers to Australia, India, New Zealand, Japan, etc.

5336. What sort of organisation would you favour—a Royal Commission?—I shuld prefer a permanent business organisation connected with the Board of Trade and managed solely by business men.

5337. Who would start the thing? Would you wish the Board of Trade to start it?—Yes, I think I should.

5338. The Board of Trade, either through Chambers of Commerce or through other institutions, would get together the best collection of business men that they could get?—Yes.

5339. I suppose your society represents almost the whole of the trade?—Yes.

5340. In your society would both the trade and the users of motors be represented pretty well, or is there any other representative body?—The users of motors you may say are represented by the Royal Automobile Club. The Society of Motor Manufacturers and Traders is purely a trade society, and we try to keep it so.

5341. There is a distinction, and a clear distinction between the two, then?—Quite a clear distinction.

5342. And you think the distinction should be kept up?—Yes. There is a good deal of feeling at the present moment in consequence of the action of the Motor Union in mixing itself up with business matters.

5343. I have heard something about that?—We do not like it.

5344. For exhibition purposes you think your society should be the one consulted?—Yes, most certainly—exclusively.

5345. I suppose you are a fairly well-off society?—Yes, we are very flourishing.

5346. You think that if this organisation were made you would not require a large State expenditure on your exhibits?—No. I think the assistance we should get, the economies that would be made, and the efficiencies that would be secured, together with our being saved from so many worries, would be worth much more than a contribution from the Imperial Exchequer. We should like the contribution all the same.

5347. (*To Mr. Edge.*) You have heard Mr. Powell's statement; do you agree generally with him?—Yes, I agree generally with it. So far as international exhibitions are concerned, we have shown through our own factories in Italy and in America.

5348. Have you factories in both of those countries?—Yes. The duty is so high that it does not pay to import into those countries. Our experience has been that so far as actual business is concerned, showing at these big exhibitions is practically valueless; but as a demonstration for the country it is of very great value. If a collective exhibit could be made at all international exhibitions I think it would be to the benefit of the whole country. As to the right sort of individuals exhibiting, let British manufacturers who wish to exhibit go to their society and let them decide the number of firms who should exhibit; they could show one or two motors, as the case might be, of each class at these international exhibitions. It does not pay an individual manufacturer to take a large and comprehensive place at an international exhibition; it may be good for his country, but it is not doing him good so far as his own particular firm is concerned.

5349. A collective exhibit would save his pocket at the same time?—Yes. He is there merely for the good of his country, and it would undoubtedly be better done in that way than by each firm exhibiting individually. It would be much better to have a collective show of vehicles representing, and truly representing, the best of the country's output, than to have the best show of one firm, however good that firm may be.

5350. How would that affect the smaller and the younger firms?—Undoubtedly for a time the smaller and the younger firms would have a difficulty in getting to the top, the same as they would have anywhere now.

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5351. They would have a difficulty in getting represented at all, would they not?—Yes, certainly; and very rightly and properly so, because the thing should be in the hands of those who have made their vehicles a success. We do not want experimental vehicles shown; it is bad for the country to see something experimental shown.

5352. Why should not a young manufacturer make a very good machine?—If he did, then he would be selected by his own countrymen.

5353. You mean that the selecting committee should go by the quality of the goods?—Certainly.

5354. And not by the name of the firm?—Certainly not; the selection should be made for the purpose of showing the merits of the country, and of showing what its manufacturers can do.

5355. We have been told by other witnesses that for the purpose of distributing the awards a good deal is made of the fact that people have exhibited very often —very much more, indeed, than of the quality of what is shown?—No doubt that would be so, and very often rightly so.

5356. It may be rightly so, but still it is evident that it must be hard on the younger ones if they show something really good, and do not get a good prize because they happen to be a young firm?—But that is where the advantage would come in of showing an exhibit of a particular class of goods really under the country's name and not particularly under the maker's name, although his name would undoubtedly be known. The mere fact that these bicycles were being shown as representing a particular country—Great Britain, in fact—would give every firm an equal opportunity of showing their vehicles, provided the selecting committee in Great Britain chose them. I think that would be the best way for the country myself.

5357. Do you not propose to have the names put up?—You would have to leave the names on for this reason—whether you put the names on or not, any particular make of machine is well known, and all its various characteristics are well known, so that even if the names are all removed, any expert would know what make it was.

5358. I suppose that would be so; therefore, you would keep the names on?—On the vehicles, yes.

5359. If there were a collective exhibit, you would save in the cost of space, and you would get better arrangements, I suppose?—A collective exhibit means that no one manufacturer can make, or ought commercially for his own business to make, as good a show as he ought to make collectively as one of a dozen firms each paying £200 or £300, which is a very small amount. Collectively they would make a very fine show, and then it would be for the credit of the country. We have got to remember, directly we get abroad, that it is not the individual firm's success which helps the whole trade, but it is the success of the country. We want the name of the country as a manufacturing country for a particular article brought forward in that way.

5360. I suppose you have been struggling hard to get the reputation of this country for motor vehicles increased?—That is what we have been fighting for for the last five or six years.

5361. You have had a big struggle with France, I suppose?—Certainly; that has been the fight, of course —to get this country recognised as a good manufacturing country. That has been recognised all the time, but then it has been very severe on the few firms who have done anything in international events, either in shows or in anything else; it makes it very severe on them.

5362. I suppose this international competition, as you might almost call it, will go on for a great many years? —I should think for a great many years.

5363. In fact, I suppose there is no reason why there should not be always these competitions?—I think, to a certain extent, it will die out in this way: As each country becomes a motor manufacturing country, there will be no necessity for foreign vehicles to go into that country; and so I think it will very likely die out, as the cycle business has in foreign countries. At the present moment it is no use trying to establish an export trade in bicycles in foreign countries, because you can only look to have that business for a short time. That is why we have established a factory in Italy. We might try to build up a trade, but as soon as we succeed in building up a trade, and it becomes of any importance and competes with the local manufacturers, they put up the duty, and then it becomes impossible to import British cycles into that country. They will do the same with motor-cars undoubtedly.

5364. They got ahead of you in France?—Yes, at first.

5365. The terms used in the business, and so on, come to us from the French?—Yes. France had a start of many years, of course. But we have manufacturing advantages over here which they have not got there. We are in a better position to manufacture here than they are on the Continent.

5366. Do you agree that there is no reason why you should be treated exceptionally as regards the payment for space, for carriage, and so on?—I do not think there is the least necessity for that. If we could get a committee appointed to see that the exhibits were representative and good, I think it would get the support of all the manufacturers of this country. But then, of course, there are difficulties in the way. The selective difficulties might cause great heart-burnings; but I think people have simply got to go ahead with it and say, "We have got to do the best for our country; never mind whose toes we tread upon." If they do it firmly, you will find manufacturers will be bound to support them, and will be always trying to improve their efforts, and so on, in order to get their goods chosen by the selecting committee.

5367. So the great point is that it is a collective exhibit that you want?—Yes.

5368. (*To Mr. Woodfine.*) Have you much to add?—No. I might say, perhaps, that I happened to be living in Paris right through 1900, and I saw something of the working of the Exhibition.

5369. I should like to hear you on that?—I heard all the rumours that were going around as to spaces being forfeited and re-let, and so on, and I know several people who were completely ruined over it.

5370. What sort of people?—Show people. There was very great difficulty indeed, and the charges that were made to them for the least little bit of work they wanted done were very great. Then they were always confronted with the difficulties of foreign law. Anybody who wanted to get anything from them would always put them in a corner, and there they were up against such a law or such a regulation, and so on. I saw a good deal of the inside working of those difficulties. They were enormous; and certainly it would have been worth far more than the money for the space, or the money for the decoration, or the money for the transit, or any other item of expenses, if they could have had somebody there with sufficient authority, to whom they could have gone and said, "There is this difficulty and that difficulty; I want you to put it right and to straighten it out." What was wanted was an authority on the spot representing the country, with sufficient power to go to the Committee of the Exhibition, when all these difficulties arose, and insist on having these things put right. Exhibitors should not be always put to such troubles because something happened at the Custom House, or something else happened at the railway station, and something else happened elsewhere, so that they were brought up against some law or some regulation which the individual exhibitor was ignorant of, and which all the different contractors and others whom he was employing were taking advantage of to always squeeze him, making him late as to time and putting him up against extra expenses of every kind.

5371. But surely the British Commission were there always to be consulted and to help you?—It might have been so, but all the same these difficulties happened, and continually happened, and I saw a great deal of them. Probably, however, the majority of the complaints in question were from the proprietors of exhibits or shows not properly within the section. I also refer to an article in the Report of the B.C.C., Paris, for 1901 (p. 71), which goes to show that exhibitors (British) in the section were unwilling to act collectively, which of course meant a greater volume of individual difficulties.

5372. Did you hear great complaints?—I heard enormous complaints. I was right inside it, and I saw the enormous difficulties that these people had. Every body was always "having" them—always using the laws or the regulations as a lever against them, saying, "Well, if you don't like to take our contract for that, you will find you will have trouble at the Custom House, you will have trouble at the railway

station, you will have trouble with the police, you will have trouble with the fire authorities," and so on—always trouble, and apparently no power to go to who could say, "These things have got to be put right, and it has all got to be made clear and straight and simple." Then in addition to that, when the Exhibition was over, a very interesting little thing happened. Some genius wrote round to a large number of firms in England—big firms, too, and said, "You have got the first or the second or the third prize; if you will send us certain fees we will send you the medal or diploma." They manufactured a great many diplomas, or medals, and sent them over here for a few shillings or a few pounds each; and it was quite a long time before the people over here—and big firms, too, as I say—got to learn that these were not the official awards at all. People over here were buying any amount of them, and apparently there was nobody there to get a hold of all these things. Then, most of the trouble with Customs arose *after* the Exhibition—getting goods away.

5373. It is difficult to provide against every form of rascality, is it not?—Of course. Every one of those things I heard and saw over there, if there had been anybody there who thoroughly understood the matter, and who had got the power, he could have straightened them out.

5374. I think they did not consult the Royal Commission enough; the Royal Commission had offices in the Exhibition, and there were people always about?—I am aware that they had offices there.

5375. Do you approve of the idea of collective exhibits in your trade?—I am not here to speak as a trader, and I have no authority to speak on behalf of the Society. Certainly, to take the 1900 Exhibition at Paris, it would have been useless for any one English firm, supposing we had been all on the same level in manufacturing, to put up a show there. It would not have influenced the Press reports upon Great Britain as a motor-car manufacturing country, because it would not have been sufficient. It would not have been any good, as Mr. Edge says, because of the duties, because in France they do not have to get a law to increase the duty. The French Government have a number of agents who are always going round inquiring as to how the imports are running on this or that article, and as soon as they find that an article is running up against some of their own goods, they have not got to get a law—it is just an Order in Council, and up goes the duty.

5376. I think that is not quite a fair description of the operations of the French Customs, is it?—They do not have to get a law.

5377. I have had a good deal to do with Customs tariffs all my life, and I do not think they are as bad as that in France. There is the classification, of course, as we know?—They get it taken from one class to another.

5378. Very often there is a power given to the Government, whenever there is a doubt about the classification, to say that motor-cars, for instance, shall come under one class and not under another?—Yes, that is it.

5379. But the power is not given to raise the duty; it is only to give a more correct classification?—And it is done without a law; they do not have to pass a fresh law.

5380. They do not have to pass a fresh law for the purpose of the classification of certain things; I think that is the position?—That is a nicer way of doing it, but it has the same effect. They have agents, who are official agents, watching all over the country, and whenever those agents find that certain articles are competing with their home manufacturers, they classify them for their own benefit. That would certainly happen with us, when motor-cars or anything else began to compete with their local manufacturers.

5381. Have you known a case of the sort you describe?—I cannot put my finger on it, but I have heard of a great many. I can refer you to a gentleman who would be pleased to give them all to you. He is a friend of mine, who was for many years secretary of the British Chamber of Commerce in Paris.

5382. The British Chamber of Commerce in Paris are in very close touch with the British Embassy there, and they could complain to the Foreign Office?—It was from him that I had all these details, and he could certainly give you the absolute instances; I only remember the general case. Taking that Exhibition of 1900, it would have required a very big collective display to have impressed upon international visitors (and especially upon the Americans, who are great buyers and who may be here to-morrow, and who are influenced by fashion as to what car they buy and even of what nationality it should be) that England is the best country for motor-cars.

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5383. Were you at the Milan Exhibition last year?—No.

5384. Then the Paris Exhibition of 1900 is the only one you have had any experience of?—It is the only international exhibition proper that I have experience of.

5385. (*Sir Isidore Spielmann.*) Can you tell us, Mr. Powell, what proportion of the British motor-car output your society represents?—(*Mr. Powell.*) It represents nearly the whole of the industry, I should think; but the secretary will be able to tell you better than I can. (*Mr. Woodfine.*) I think you can really say that there is no firm with any output at all that is outside of the membership of the society.

5386. Can you tell us about the number of cars that have been turned out by your society within a given time?—No. We have never had any complete statistics, though we did put before the recent Royal Commission on the Motor Car Acts some statistics of output, etc. (*Mr. Powell.*) It may give you some idea if I tell you, taking last week as an instance, that we sent out 95 cars, and over 100 cars the week before Easter. Every week our own firm is sending out from 60 to 80 cars. That will give you some idea of the growth of the industry.

5387. Are they all sold in this country, or are they exported?—They are both sold here and exported; many are bought, of course, in this country, but a good number go abroad.

5388. What proportion will go abroad?—I should think perhaps 7 or 8 per cent. at the present moment, but later in the year it will be a larger proportion. When the season is over here, it is still on abroad.

5389. I understood you to say that you export also to Australia?—Yes.

5390. What is the duty chargeable there, do you know?—I really cannot tell you that.

5391. Do you also export to foreign countries in Europe?—Yes. We have exhibited in Brussels and Berlin, and we are now sending a number of cars to Holland, Belgium, and Germany. We sent some to Chemnitz last week. We are sending a few to France, and a good number to Italy, Spain, and Portugal.

5392. Does the fact that you are now exporting cars make any difference to the number of foreign cars imported?—Yes. I think Mr. Woodfine has the figures. I believe the imports are actually going down. Our exports are increasing very rapidly, the English production of cars is increasing very rapidly, and I believe the returns show an actual decrease in imports; is that not so? (*Mr. Woodfine.*) There is a comparative decrease. (*Mr. Powell.*) Not an absolute decrease? (*Mr. Woodfine.*) No. (*Mr. Powell.*) It is only relative? (*Mr. Woodfine.*) Yes; there is apparently a slight increase still, but it is very much less than it was.

5393. Can you attribute that change to exhibiting cars at exhibitions?—(*Mr. Powell.*) No, I do not think it is to be attributed to that. We were hampered by legislation for a long time—you know, the old red flag business. That allowed the French and German makers to get a lot ahead of us; but we are overtaking them very rapidly.

5394. There is great competition, is there not, between British and foreign built cars here in England?—Yes.

5395. Can you tell us why we import the foreign mechanism and add the British-built carriage to it here?—My firm does not do it, though some firms do it. We make our engines, we make the chassis, and we make the bodies. The only things we import are some of the electrical fittings. (*Mr. Edge.*) We had better clear that point up before you go further, because there is rather a misunderstanding about it. The Board of Trade Returns are somewhat misleading. They show the imports in two forms. They show them as motor-cars and as parts of motor-cars. Under the head of parts of motor-cars they really mean what we call chassis. When we talk of motor-cars, the carriage body is not an essential point at all; that is nothing—it is a very small proportion of the cost of the whole, and it is quite immaterial where it is made. We do

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not care about that; it is a very small point. But the Board of Trade Returns show as parts what are not really parts. There are a certain number of true parts, but the bulk of them are correct chassis. In this country it has been suggested, and it was suggested no doubt by those interested in foreign motor-cars, that this large influx of parts which is shown on the Board of Trade Returns meant that British manufacturers were buying foreign parts and making them into British motor-cars. That is quite untrue. It is quite time that there was a change made in the Board of Trade returns which suddenly showed this rush, and what you have really got to do is to take the whole thing—the parts and the motor-cars—and add them together, so as to show your total imports of motor-cars. There is a certain number of true parts, such as valves and little bits of things, which come in in quite small quantities. At one time there were one or two firms who bought their engines abroad and put them into chassis here; but that practice is dying out now, and you may take it that when we speak of a British motor-car to-day it is a British motor-car with some small parts possibly brought from abroad; just in the same way as French manufacturers manufacture what are termed French motor-cars, but they buy their magnetos and that sort of thing in Germany. So in Italy, there are Italian-made motor-cars, but they produce practically nothing in their own country, and they have to buy nearly every bit of it from either England or France; and yet people talk about the Italian industry going ahead! But they make nothing there, and they have no material. I have a factory in Italy myself, and I know they have no material that they can buy in the country worth talking about. We supply them with most of their parts. The axles they get from this country, the springs from France, and so on right through. The Returns are quite misleading; but very few people know the truth about it, unless they have factories. And it is much the same thing in America at the present moment.

5396. (*Chairman.*) Do you suggest that there should be a better classification for motor-cars in the Returns than there is at present?—I do not know what difficulties there are in the way of having a correct classification, but I do suggest that there should be something better than we have at present.

5397. (*Sir Isidore Spielmann.*) Coming back to exhibitions, do I rightly gather that it does not assist you in your business to exhibit motor-cars at exhibitions?—(*Mr. Powell.*) It assists us greatly. What I meant to convey was that when a business is thoroughly established—for instance, like our bicycle business is—exhibitions do not assist us much. Our goods are well known, they are standardised, and there are very few alterations. But when the bicycle industry was in its infancy, it did assist us enormously. The motor industry is in its infancy now, and it will assist us to exhibit; but then a time will come when it will not assist us so much.

5398. The exhibitions at Olympia have been highly successful, I believe?—Yes, very.

5399. Reference has been made to unfairness in giving awards; can you point to any particular country where you have had an unfortunate experience in that respect?—Personally, my firm have never had any cause to complain. We are a well-known firm, and we have had awards which have quite satisfied us. I am only speaking generally. It is pretty well public talk, and it is quite understood in the trade, that the awards at foreign exhibitions are not given us quite on the right lines; they do not inspire that confidence in England that they ought to inspire.

5400. We have recently had witnesses here of some repute who have indignantly denied the statement that awards are occasionally given which are not given solely on account of merit; but you are of another opinion?—Yes, clearly.

5401. Have you had any experience of your cars or bicycles, especially the bicycles, being copied?—Yes, they have been copied very largely; but it is very difficult to trace that directly to an exhibition, because a rival trader can easily get a bicycle by going to one of our depots or agents' shops. So you cannot directly trace it to the exhibition, although exhibiting does assist in that direction.

5402. Have you exhibited at other exhibitions besides the Paris Exhibition of 1900 and the Milan Exhibition?—We exhibit at all the important exhibitions either directly or through our agents—almost invariably through our agents.

5403. In your opinion, have the British sections of machinery, in which I suppose bicycles come, been satisfactory?—I was not present at the Exhibition in 1900, and therefore I could not say anything about it; but the annual exhibitions abroad are not satisfactory. They do not treat English traders abroad as well as we treat foreign traders here. They put us in little corners, where our goods are not so well exhibited as their own. They do not treat us as being on an equality with their own firms like we do at our show at Olympia.

5404. To what do you attribute that?—I do not known. I suppose they are not cosmopolitan like we are, and that they are looking after the interests of their own people.

5405. Is it the fault, do you consider, of the management of the British Commission?—I am speaking now of the annual exhibitions abroad, and there is no Commission there.

5406. I was referring more to international exhibitions. Have you cause to complain of the treatment you have received at foreign exhibitions as regards space and attention, and so forth?—We have had no cause to complain as to the international exhibitions, but we have as to the annual exhibitions.

5407. As regards the cost of exhibiting, would you say you have often kept away from exhibitions on account of the great cost? If you were assisted in the cost of exhibiting, would you, or your firm, be willing exhibitors?—Yes, we should be perfectly willing to exhibit, and we should like it. But, as I said, I place more value upon the assistance we should get and the worry we should be saved if we had some organisation to take charge of these things, to take the space for us, and arrange all for us, decorating the stand and allocating the space to the various firms exhibiting. That would save us all the worry and trouble that we now have in dealing with foreign exhibitions. We would rather have that than a contribution, though we should like the contribution as well.

5408. I think Mr. Woodfine referred to the forging of awards and to false diplomas and medals being issued?—(*Mr. Woodfine.*) Yes.

5409. I am not here to defend the Paris Commission of 1900, but are you aware that that Royal Commission, as soon as it heard of it, sent out notices to all their exhibitors to beware of that particular firm, and that that particular firm in consequence took legal proceedings against the Royal Commission in England, and lost the action?—I am not aware of that.

5410. I only mention that to show you that the interests of the exhibitors were not forgotten?—I do not for a moment suggest that the Commission did anything which an English Court here would have held sufficient negligence for an action to be sustained against them. I am only suggesting that it might have been otherwise.

5411. (*Mr. Malcolm Ramsay.*) Am I right in inferring from your evidence that in deciding whether you will go to an international exhibition you have not been very much influenced by the consideration whether the Government was going to officially participate or not?—(*Mr. Powell.*) I think we should have been influenced by that; but as things are at present, as I have mentioned, we leave these matters to our local agents, as they can do it so much better and so much more cheaply. If we had it under the charge of a Government Department, who would look after everything for us and tell us: "There is your stand; all you have to do is to take your goods and put them there, and take charge of them," we should probably exhibit directly.

5412. Has it been your experience that the exhibitions where the British Government has officially participated have been better managed or more successful, from your own point of view, than those exhibitions where the British Government has not participated officially?—I could not say that I have really had any experience which is of any value of exhibitions where the British Government has officially participated.

5413. Your great point is that an efficient organisation is much more useful to you than anything in the way of a subsidy?—Certainly that is so.

5414. (*To Mr. Edge.*) Do you agree with that?—I do.

5415. I should like to ask you, Mr. Edge, what sort

of proportion your export trade bears to your whole trade?—It is about 14 per cent.

5416. Is your export growing in relation to the home trade?—Judging from the way things are going at the present time, I expect in three years from now to do more than half my trade abroad—that is, with the British colonies; but so far as the European countries are concerned, the large motor-using countries of the world, I see no hope except in establishing our own factories.

5417. But for the moment your foreign trade has been going up faster than the home trade?—It is growing in the British colonies, but not faster. The business itself, as a whole, is developing very fast indeed, and in looking at some of these figures one has to keep in mind that the business itself has for years now gone up two or three times each year—that is, has doubled and trebled itself.

5418. Are you speaking now of the whole turnover?—I am talking now of our individual firm. I should say the total development is infinitely greater than that.

5419. But your foreign export has not grown faster than your own home development?—No, it has not; but it is growing fast now, and I think we look forward to there being a very big future in that trade.

5420. (*Chairman.*) By foreign exports you mean chiefly colonial exports, do you not?—I mean colonial exports; I am perhaps wrong in calling it foreign.

5421. (*Mr. Malcolm Ramsay.*) Did you go to the St. Louis Exhibition?—I was exhibiting there through the American factory.

5422. Then you went as an American?—Yes, that is so.

5423. So I suppose you did not come across, or have very much to do with, the British Commission there?—That is so. I heard no reports of them.

5424. I do not think you have been asked whether you have any particularly strong view as to the sort of body which should be placed in charge of the British exhibits at an exhibition. Are you satisfied with the Royal Commission system?—I would have thought that a Royal Commission would have been exceedingly valuable; but, speaking for myself, I think that it could be enormously strengthened, if I may say so, by the addition of a representative from each of the trades that would be exhibiting at the exhibition—that is to say, supposing you bring in one representative from the motor trade, and another representative from some particular class of the steel trade, and another representative of textile materials, by that means you will be brought into touch with the men whose interests are fearfully keen in their particular thing, who are specialists in that particular thing, and who are sure to be able to suggest something to the general Commissioner which might very easily escape his notice, because he is not so keen on it, and he cannot be.

5425. Then you would like, more or less, a fixed nucleus with an expansive periphery of experts?—That is so. Our interests are absolutely bound up to that particular thing.

5426. It has been suggested by some witnesses who have given evidence before us, that the actual management of the British section at these international exhibitions has not been sufficiently in the hands of business men?—My suggestion would rather cover that.

5427. I do not know whether you would advise that business men—by which I mean people who are actually engaged in a business of their own—should be placed in charge of the exhibition?—I think that would be the worst thing in the world that you could do; for if they were any good they would be busy at their own business, and, as a rule, would not have the time to attend to something concerning the general good.

5428. For the really effective part, the carrying out of the details and the working out of the organisation, you would want more or less an exhibition specialist?—Yes; you would want a permanent staff undoubtedly.

5429. Or something in the nature of a permanent staff?—No doubt.

5430. Which could be advised as to the interests of particular classes of exhibitors by experts?—Yes.

5431. Who could be associated with that organisation?—Yes—with the Royal Commission, say.

5432. (*Mr. Harris.*) We have been asking you questions about international exhibitions, but I should like to make out clearly whether it is not the case that there has been, up to the present, no considerable exhibit of motors (in which you are chiefly interested) at any international exhibition; I rather gathered from Mr. Powell that there has not?—(*Mr. Powell.*) I have been trying to think; I do not remember that we exhibited at any one excepting the Milan and Melbourne Exhibitions; I think those are the only two at which we have exhibited motors.

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5433. (*To Mr. Edge.*) Do you say the same?—That is so.

5434. So that, in fact, what you have been saying is a little on the border of theory rather than actual experience?—Yes, it is a little bit.

5435. You have referred to the annual exhibitions which are held abroad; could you explain what those exhibitions are, and who organises them? Are they called international exhibitions?—(*Mr. Powell.*) Some of them are. (*Mr. Edge.*) They are international Motor-car Exhibitions—that is to say, they are class exhibitions, but international.

5436. Would you mind telling me who organises them?—They are generally organised by the Automobile Club of the country, very often with a promoter possibly in the background. In the case of France, where the biggest exhibitions are held, they are promoted entirely by the French Automobile Club, who formulate the rules—for the benefit of the French exhibitors; that is to say, they make rules which give the French exhibitor a preference (which is very proper from their point of view), but make it quite impossible for any British firm to go there, except for the purpose of being put into a small space, so that a French manufacturer may say when you are talking about a Daimler or a Napier, "Go and look at Napier's stand over there in the far corner, and you can see what sort of firm they are"—whereas you are not in a position to do any better, because you are put down into a small space. That is the cleverness of their staff, and it *is* very clever from their point of view.

5437. Would you hold then that your trade has never had a fair run in any exhibition?—Yes.

5438. (*To Mr. Powell.*) Would you agree there?—I do. We exhibited at the Paris Motor-car Exhibition, two years ago, I think it was, and we did not consider that we were well treated. We have not exhibited since. I saw the Daimler stand, and I saw the Napier stand last year, and what Mr. Edge has said is quite true. They treat us very differently. (*Mr. Edge.*) I went there for two years when I could get a convenient stand, and when they put us more on an equality with the French manufacturers. I drew the second prize in the second year, and they altered the rules the next year and I got an inferior position.

5439. On the whole, would you rather stand out of international exhibitions altogether than go on with them?—(*Mr. Powell.*) No. (*Mr. Edge.*) I would rather see the country represented. I say Great Britain ought to be represented at every exhibition that is held.

5440. I understand that you are strong on collective exhibits, but I am not so sure that Mr. Powell agrees with you?—(*Mr. Powell.*) At the present moment there would be such a large number of firms wishing to exhibit motor-cars (because it is a new industry, and a large one), that I think you would find it very difficult indeed to manage a collective exhibit. That is what I mean. At the present moment, I would rather have an individual stand.

5441. May I take it that you would be afraid of the jealousies that would be excited by selection?—One must have such an enormous stand for a collective exhibit that I do not know how it could be managed. I think you would have to leave it to each individual firm to look after its own goods, but allocating to them certain space as at present.

5442. I should like to press you, Mr. Edge, upon this point: Why is it bad to show an experimental machine? Will it not do the trade of the country good?—(*Mr. Edge.*) It is not bad to show a good experimental machine, but it is very bad to show what we may call a freak machine; for this reason, that it makes the country a laughing stock. You see there are a great many people who bring out designs and that sort of thing which are quite impracticable.

5443. Have you actually seen that amongst the English exhibits?—That is one of the things that did most

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harm to this country when we first inaugurated motor shows here. We got a large class of makers who thought there was a fortune to be gained in the motor trade by making something entirely different to anybody else. They showed those things, and those things were held up to ridicule in all the Continental and foreign papers; and very properly so.

5444. Were those things shown here, do you say?—They were shown here, and then they were illustrated in the foreign papers as examples of British manufacture. They did not show the good ones in their papers; they showed the bad ones, and they said, "There is a sample of a characteristic British exhibit." That was proper from their point of view, as they made the best of it for themselves.

5445. So that up to this point really about as much harm as good has been done to British trade by exhibiting motor-cars?—In that sense, yes.

5446. And generally?—In this country we have now managed to get a very fine show together; and it is an international show in which we exhibit very much on equal terms. Great Britain being such a large buying centre, the foreign firms have had to come here, and they could not ignore us. They had to come here through their representatives who were already here, or else they had to send. We opened our arms to them and said "Come along." What we did when we got them here was to put up cars against them which made it very difficult for them to compete; and that is why we have got a trade in this country for British motor-cars which is practically pushing out the foreigner. Every year the imports are not doing so well—in fact, for the first quarter of this year they showed a decrease, for the first time in the history of the trade.

5447. And all that you have done without any international exhibition?—And without any Government help of any sort, simply by the great vitality in the trade.

5448. So that it really comes to this, does it not, that, as a matter of practice and as a matter of experience, no great benefit is to be brought to the motor-car trade by an International Exhibition?—I would say "Yes, there would be great benefit." If it can be taken in hand in the way I have indicated by a collective exhibit, I think you would find the firms scrambling to get a share of the space. Mr. Powell suggested that there would be so many applying that you could not allow them all to exhibit. I think that it is wrong to assume that all should exhibit; for this reason, that obviously at an International Exhibition there is only going to be a certain amount of space allotted to the motor trade, and, therefore, if it is a question of whether you should pick out the 12 best motor-cars of the country, or try to squeeze in 24—12 good and 12 bad—my own opinion is that the best interests of the country would be served by some committee with full power saying, "We will take only a few of the best representatives of the trade of the country to show at an International Exhibition." That is my feeling. I say I do not care what happens to the other man, and I do not care how he feels. If this committee possesses the support of the trade, which they ought to have, they will pick out those which seem best for the interests of the country. That is what an International Exhibition, in my opinion, should be for—for the interests of the country, and not for the interests of the individual.

5449. (*Mr. Algernon Law.*) I think you mention decoration as one of the expenses which the Government might bear in case it participated in an International Exhibition?—(*Mr. Powell.*) What I meant by that was that at all these exhibitions you take a certain amount of space, and then you are supposed to cover that space in any way you think fit, which means that you cover it with a stand, and you decorate that stand, and that decoration of the stand costs you more than the space. What I mean is that if you had a uniform system by which a certain amount of space in the exhibition would be taken for the British section, then this organisation would arrange to take the space and decorate it—that is, to get suitable stands and put the decorations up; and then it could allocate the expense of that amongst the exhibitors.

5450. You would bear that expense, you mean?—Yes.

5451. And you would not expect the Government to do so?—No.

5452. In fact, you merely look to the Government for the organisation?—I think the Government might help a little pecuniarily also, perhaps.

5453. In what respects would you expect the Government to do that?—The Government might bear the whole expense of the staff and of the organising; but I do not know that we should expect much more than that.

5454. But there should be no direct contributions to the expenses of the exhibitor?—No, I do not think that to be necessary.

5455. In the case of the Paris Exhibition, did your agents require you to put their names on your goods, or did your own name stand there?—Our own name stands on the goods. The stand is taken in the name of our agent, but he puts himself up as agent for Humber cycles and cars.

5456. We have had evidence to the effect that agents practically prevent their principals from exhibiting, because they will not allow the name of the firm to appear, for fear that they should be dealt with direct?—We have not experienced that.

5457. So that would not apply to you?—No.

5458. Though you say that a well-established firm really does not gain by any exhibition, do you think they stand to lose by not exhibiting? In other words, is it necessary for the maintenance of their reputation that they should exhibit?—A good deal depends on their circumstances, of course. Some firms must constantly keep before the public, and must be constantly advertising. It would not do to hold absolutely aloof.

5459. I think you said you were represented at Milan?—Yes.

5460. Were you satisfied with the British organisation and arrangements there?—I was not there personally. We did that through our agent in Italy.

5461. You did not hear of any criticism from him, did you?—No; he seemed to be quite pleased with what was done.

5462. (*Chairman.*) Is there anything else you gentlemen would like to say before you go?—(*Mr. Edge.*) There is just one point. A question was asked of Mr. Powell just now with regard to the Government grant. It seems to me that a Government grant is quite an unnecessary thing, provided the exhibitor is sent out in an official way in a sense, because it would be an enormous advantage to a manufacturer in this country to be picked out as one of those sent to represent his country, and I think that would more than make up for any share of the Government grant. It would bring an enormous return to the company.

5463. You want your collective exhibit chosen without financial help, and then you want help from the State whilst you are out there?—I could take care of my firm's interests quite well, and pay everything in relation to it, provided we could get helped in that way.

5464. You want help in making your arrangements, when the exhibit has been got out there?—(*Mr. Powell.*) Yes. (*Mr. Edge.*) If you had a permanent staff who were looking after British interests as a whole there, to see that the vehicles, or whatever they may be, are shown in a proper manner and with a dignity worthy of the country, that would be better than the individual trader exhibiting on his own account.

5465. But you do not want a direct grant from the British Treasury towards the cost of transport and of space?—I think that is quite unnecessary. The great thing is to make it really worthy of the dignity of the country. That is the right thing to do.

5466. (*Mr. Harris.*) Would not any British exhibitor exhibiting through foreign agents, as you did at St. Louis, be going quite contrary to such a proposition as that which you make now?—Certainly. He would have to go into it as an American exhibitor.

5467. You would not help your business if you were exhibiting through a foreign agent, would you?—Not a bit. I would rather go as representing the country; I should like to exhibit on behalf of the country.

5468. I imagine that in the case of St. Louis, where you exhibited as an American, you could not help yourself?—We had got the factory there, and we hoped to do a certain amount of actual business. I was not thinking about my country there; I was merely thinking of selling some motor-cars to people. On this point now I am thinking much more of the country's good.

I think there is a great deal to be done by the Government actually taking these things up, looking after the interests of the country, and seeing that the goods are properly shown. If the goods are not shown properly, then a protest from a Government organisation would carry more weight than it would from any individual firm.

5469. Supposing there was another exhibition in America, and we had such a collective exhibit as you describe, giving the best from this country, would you exhibit against yourself in the American section?—Certainly.

5470. So that you would have two exhibits, one against the other?—Certainly. In the American section, one would be trying to sell goods. We should not be selling British goods, but we should be taking part in the collective exhibit for the good of Great Britain. That is very important for the trade of the country. We want the world to think well of us, because if they do not think well of us we shall not sell our goods, however good we are individually.

—5471. There is one thing that puzzled me a little bit in one of your replies. You say you have a manufactory in Italy in the same way as you have in America?—Yes.

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5472. But yet I gathered that they did not manufacture anything at all in Italy, so you have a manufactory to manufacture nothing?—We have it for this reason—to overcome the duty difficulties. They do work there, you should understand, but they have to buy their raw material from France or England. There is no raw material in Italy worth anything which is suitable for making motor-cars.

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5473. So you import all the parts into Italy, and put them together?—In some cases we machine them. We pay a great deal for labour in Italy. The stuff we send into Italy gets in practically without any duty, because it is raw material, and the money that is spent upon it and paid away to workmen is paid away to Italian workmen in Italy, which is a very fine and excellent arrangement from their point of view. They come to us in England and buy something which is worth very little, and then we pay them for all the labour of making it into an Italian motor-car.

Mr. GEORGE JENNINGS, called and examined.

5474. (*Chairman.*) I believe you are a director of the firm of George Jennings, Ltd.?—Yes.

5475. That is a very old firm which is engaged in sanitary engineering, I think?—That is so; it has been established since 1837.

5476. I understand you have exhibited since 1851 at nearly every international exhibition, both at home and abroad?—Yes, including the Exhibition of 1851.

5477. You have shown at the exhibitions at Paris, Vienna, Philadelphia, Sydney, Brussels, Nice, Antwerp, Barcelona, and other places?—Yes.

5478. I think you exhibited at the last Paris Exhibition?—Yes, we did.

5479. Your goods were sanitary fittings to the value of £1,000 and upwards, I understand?—Yes.

5480. Have you had much increase of business in foreign countries from exhibiting?—Yes, a very fair amount.

5481. But more formerly than you do now?—Yes.

5482. I suppose you have more competitors on the Continent than you had formerly?—I do not know; I think it has a great deal to do with the tariff question.

5483. The tariffs are high against your goods, I suppose?—Yes.

5484. But surely you led the way in sanitary fittings abroad; and there must be more makers of those fittings than there used to be 20 or 30 years ago?—Undoubtedly.

5485. Have you had any disadvantage from exhibiting, owing to your goods being copied?—Yes.

5486. I suppose they could have copied them by coming to London and buying specimens?—Yes; but the goods were brought more under their notice by being exhibited at exhibitions.

5487. I have no doubt you have got a good many awards?—Yes.

5488. Do you attach any value to those awards which you have got?—We attach some importance to the awards.

5489. Do you advertise those awards at all; that is, are they described on your letter-paper, your cards, and so on?—Yes.

5490. Have you ever been induced to buy from foreign manufacturers or British manufacturers from having seen their goods at exhibitions?—No, I do not think we have.

5491. I am thinking of machinery chiefly which cheapen your manufacture?—We buy abroad in some cases; but we have not been induced to do so through exhibitions.

5492. Have you ever derived any instruction in the way of economy in manufacture or how to produce improved machinery?—No.

5493. You have refrained from exhibiting your goods at certain exhibitions—for instance, Chicago and St. Louis—on account of the tariff restrictions shutting out your manufacturers?—That is quite true.

5494. Is the duty on your goods in America very high?—Yes, it is higher than in any other country.

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5495. But I suppose that your goods would have been seen there by the Canadians who were present, and by South Americans too, and so it would have been in that way an advertisement?—No doubt that would be so; but the Americans copy very much. That is one reason why we did not exhibit.

5496. You do not send much to America, I suppose, now?—Very little.

5497. Chiefly on account of the tariff?—Quite so.

5498. Do you attach importance to this country taking part in international exhibitions for the credit of the country, and would you help to do so in future?—I should say not under existing conditions.

5499. What would you suggest that we should do in order to improve the organisation?—I do not know that it is in the organisation of the exhibition itself that I can suggest anything.

5500. Is it the heavy tariffs that you object to?—Yes.

5501. That would not stop you so much from exhibiting in our Colonies, because the tariffs are not so high as a rule there?—No, they are not. With regard to the Colonies I think that we should take part in any exhibition there—in fact, we have exhibited in New Zealand just recently.

5502. Have you had any business in consequence of that that you know of?—Yes, a little.

5503. I suppose in Canada you do a good deal of business?—We are doing more in Canada.

5504. You do not have branch factories in these highly tariffed countries, do you?—No.

5505. I suppose your home trade here forms by a good deal the greater proportion of your trade?—Yes.

5506. Have you any exhibitions over here, annually or otherwise, confined to your particular wares? We have been talking lately about a motor exhibition that comes up every year; usually there is a sanitary exhibition, is there not?—You are referring, perhaps, to the Royal Sanitary Institute. We have exhibited there.

5507. Are their exhibitions every year?—I will not be sure whether they take place every year or every two years.

5508. Do you exhibit in this country periodically?—Yes. We have taken part in one exhibition just lately, at Olympia.

5509. Do you think that that is of more benefit to you than a large general international exhibition?—Yes, I should say it is.

5510. You do not take very much interest in the question of the organisation, then, of international exhibitions, whether by Royal Commission, as the large ones have been organised hitherto, or by the London Chamber of Commerce or some other body?—No; I do not think that is a matter that concerns us very much.

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5511. Do you sell your goods chiefly by travellers?—Yes.

5512. You have travellers continually about, then?—Yes.

5513. I suppose, looking out for what all the municipalities are doing all over the country when new systems come up?—Yes.

5514. (*Sir James Kitson.*) I rather gathered that you are looking for the improvement of your trade to an alteration in foreign tariffs; that is on your mind more than anything else, is it not?—Yes.

5515. At the same time your general business is expanding?—Yes, it is expanding, but not so fast as one could desire.

5516. You would like a little more, I suppose?—Yes.

5517. But still your business, notwithstanding the foreign tariffs excluding you, is a growing business?—Yes.

5518. You say you are not doing much in America?—No; hardly anything.

5519. But you would know that a good deal of sanitary ware, such as baths and things of that kind, does go to America from the North?—Yes; it would be the cheaper class.

5520. There is a very large business in that, is there not?—I do not think they import so many baths now as they did. They make them in America now, and they send them over here.

5521. I happened to be in Boston a couple of years ago, and I was at a very large establishment there, and I found that many of the baths were obtained from England. Are you surprised to hear that?—I am.

5522. There was a very large warehouse fitted up altogether with baths and sanitary ware manufactured in this country. They were Leeds ware. Do you know those baths?—Yes. I know that some years ago a good many went over there, but I think now that they are manufacturing them in America and sending them over to this market.

5523. My experience is only a small one, but I happen to have seen that. The business is still a considerable business in that class of things from the North of England, is it not?—Yes.

5524. So I suggest to you that the tariff does not altogether exclude these goods?—Well, it might not altogether.

5525. On the Continent of Europe one sees your ware pretty extensively?—Yes.

5526. And one sees the imitations, which are very inferior. There is no tariff question there, is there; it is a question of art and design, is it not?—The tariff does come in to some extent. It prevents us selling there as largely as we should otherwise.

5527. Is there a large business in your ware in France?—Yes, there is a very large business.

5528. And that is in spite of the tariff?—The tariff in France is not so high as it is in many of the countries; I do not think it is more than about 10 per cent.

5529. What is it in Germany?—More than that, I should think; but I am not sure, and I could not say for certain.

5530. Do the Germans exclude you?—Yes, very much.

5531. (*Mr. Malcolm Ramsay.*) Do I rightly understand you to say that your export trade has grown in consequence of your taking part in foreign international exhibitions?—To some extent; I will not say it is all due to the exhibitions.

5532. But still you think on the whole there has been an increase due to them?—Yes.

5533. Has that been the reason why you have exhibited so regularly?—Yes.

5534. I mean you have exhibited regularly because you have found that trade has followed your exhibits?—Yes.

5535. Have you ever considered the question of leaving off exhibiting? I should have thought your firm has been so long established, and is so very well known, that you could have afforded to let your name carry its own weight?—Certainly; that has been considered.

5536. Will you lose trade if you cease to go in for exhibitions?—It is very possible we might lose to some extent.

5537. You were at Paris in 1900, I think?—Yes.

5538. Could you tell us roughly what it cost you to exhibit there—what were your out-of-pocket expenses?—I am afraid I could not.

5539. £500?—More than that.

5540. £1,000?—Quite. We had a very large exhibit there, and we got the *grand prix*.

5541. Do the expenses which you incur in taking part in foreign exhibitions bear a very large proportion to your general expenses of advertising or pushing your business?—Yes.

5542. They form a large item in it?—Yes.

5543. (*Mr. Harris.*) May I infer from your answers so far that you have no great liking for exhibitions, and that you attach no great importance to exhibitions as a means of pushing your trade on the whole?—As I said before, not under existing conditions.

5544. Do you mind explaining that, "Not under existing conditions"?—I am thinking of the tariff question.

5545. What is your view of the purpose of an exhibition? Do you look upon an exhibition as an opportunity for pushing your particular goods?—Yes.

5546. Do you think the Government is justified in spending money upon helping a trader to do that?—That all depends, I take it.

5547. Were you at Paris yourself in 1900?—No, I did not go to Paris in 1900.

5548. Had you any of your employees there, or did you exhibit by an agent entirely?—We had employees there.

5549. Can you give me any opinion as to the management of that exhibition? Were there any complaints made to you about your treatment?—No.

5550. You have nothing you would like to say about that?—Nothing at all.

5551. As regards the awards at Paris or elsewhere, have you any views as to the methods employed in awarding medals or other awards of merit?—No, I do not think so.

5552. You think on the whole they are satisfactory as far as you know?—Yes.

5553. (*Mr. Algernon Law.*) What was the last International Exhibition in which you took part—Milan?—No, we did not take part in Milan.

5554. Are you influenced in taking part in an exhibition by the fact whether it is supported by the Government or not?—No.

5555. Not at all, would you say?—To some extent I should say we are.

5556. But not to any great extent?—Not to any very great extent.

5557. (*Mr. Wilson Fox.*) You say that you have taken part in exhibitions as an advertisement in the past, but not so much in recent years; is that because, having made a reputation, it is not necessary for you to show at exhibitions so much as you did formerly?—Yes, to some extent that is so.

5558. You have got your clients abroad more firmly fixed, and so your business does not require that particular form of advertisement?—We have agencies in most of the countries abroad.

5559. Do you go to foreign exhibitions which are held in places in which you have agents, as well as those which are held in places in which you have not agents? Supposing you had an active agent established in Paris, and doing a large business there for you; would you take the trouble to show there?—That is a matter for consideration. I should not be prepared to say we would or we would not.

5560. Do you have travellers as well as agents?—Yes.

5561. When you show at a foreign exhibition, do you show for the purpose of maintaining or increasing your export trade, or for the purpose of benefiting your home trade by getting the advertisement of an award?—For both.

5562. Do you show abroad mainly with the object of your export trade?—Yes.

5563. As regards your home trade, I suppose you rely upon the ordinary mode of advertisement?—Yes.

5564. Having got established as well as you are in the eyes of the public, if you did not show at these large exhibitions would you have any fear of competitors cropping up and gaining awards instead of you?—To some extent.

5565. How far has that element influenced you in showing?—That certainly would be taken into consideration.

5566. (*Chairman.*) How often would you like to show at an exhibition?—I do not know that I could answer that question.

5567. In your business are you making great changes or improvements from year to year?—Yes, certainly.

5568. And those you would show at these special exhibitions in the country, which I suppose are practically annual?—Yes.

5569. But you would not consider it necessary to show at a big International Exhibition more than once in five or ten years, would you?—About once in five or ten years. *Mr. G. Jennings.* 25 April 1907.

5570. That would be quite enough for your purpose?—I should say so.

5571. (*Mr. Wilson Fox.*) Expense is an element, I suppose, too, which you would consider?—Yes.

5572. It would be a very expensive thing for you to show at a foreign exhibition every year?—Yes; it would mean a great expense.

5573. And it would be very troublesome?—It would take some time to get the money back in the way of business.

5574. (*Mr. Harris.*) Have you traced any orders directly to an exhibition?—Yes.

5575. You have actually traced orders to an exhibition?—Yes, but not commensurate with the cost.

5576. That is, not commensurate with your outlay?—No.

EIGHTEENTH DAY.

Thursday, 2nd May 1907.

PRESENT:

Sir Isidore Spielmann (*in the Chair*).
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Mr. S. J. Waring.
Mr. U. F. Wintour (*Secretary*).

The Right Hon. Lord Brassey, G.C.B., and Mr. Charles Charleton, called and examined.

5577. (*Sir Isidore Spielmann.*) I understand, Lord Brassey, that you desire that we should examine Mr. Charleton first?—(*Lord Brassey.*) I should be glad if you would do so, as he can go more fully into the details than I can, but at the close of his statement perhaps the Committee will give me the opportunity of saying a few words upon some general points connected with your subject.

5578. (*To Mr. Charleton.*) I believe you are the Chairman of the Council of the London Chamber of Commerce?—(*Mr. Charleton.*) Yes.

5579. What has been your experience in regard to exhibitions?—My experience has been rather small. It has been principally hitherto as an exhibitor and a visitor, until quite recently, when I have been taking a very active part, together with yourself, in the arrangements for the Franco-British Exhibition for next year. I feel I am learning something every day, for my past experience, as I have said, has been rather more as an exhibitor and as a visitor.

5580. As Chairman of the Council of the London Chamber of Commerce, you take an interest, I suppose, also in the International Exhibitions' Committee of the Chamber?—Yes.

5581. Have you formed any opinion as to their effect on the manufacturing and export trade and on British Art?—The effects, in our opinion, are of two kinds: First, in making British industries, the reputation of which is so predominant abroad, better known in detail to foreign buyers; secondly, in keeping these British industries themselves up to date, by enabling English buyers and manufacturers to see on the spot the position to which foreign and competing industries have attained; thirdly, English industries are distinctly advancing on all lines where artistic development is necessary, and it is most essential, more so than ever, in the case of ordinary industrial manufactures, that the artistic side should ascertain direct what the taste of foreign countries is in order to facilitate supply, and at the same time to enable those who are responsible for artistic productions of various kinds to bring home to the foreigner the great progress which English art has realised. There is every reason to believe in regard to art, even apart from its industrial side, that it has benefited of recent years by the exhibitions of British paintings, water-colours, and statuary. *Right Hon. Lord Brassey, G.C.B., and Mr. C. Charleton.*

5582. You say that English industries are distinctly advancing, but that in the case of ordinary industrial manufactures it is most essential that the artistic side should ascertain direct what the taste of foreign countries is, in order to facilitate supply; can you give us any information on this head as to special manufactures? Have you anything in your mind that you can tell us particularly that you have noticed in regard to the taste of foreign countries? Do you refer to textiles and things of that sort?—Possibly, to some extent, to textiles. We are holding our place it may be in some iron work too, and in some parts of building work. I do not speak so much of public buildings as perhaps of the larger works of the bridge type and engineering type, where art can play a part. Perhaps also, to some extent, we are holding our place in furniture.

5583. Have you formed any opinion as to the effect of exhibitions on the general commercial relations of the countries?—Whatever the practical result to individual manufacturers may be, there is little doubt that exhibitions improve international relations, not only with the country in which the particular exhibition is held, but also from the advertisements which that exhibition supplies to the country in which the exhibition is held. There is little doubt that the recent exhibitions at Chicago and St. Louis have helped to develop and maintain British industrial reputation, although individual exhibitors may not, owing to the American tariff, have been able very largely to increase their business with the United States of America.

5584. On the whole, do you think that it is in specialities and not in staples that the benefits of international exhibitions are chiefly derived?—The results of these exhibitions vary to some extent according, first, to the degree of development which industries have attained in the country in which the

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exhibition is held, and secondly, on the tariff supplied by that country to similar British productions.

5585. Do you know of any industries or class of industries which are injuriously affected by exhibitions, and, if so, what are the industries and in what way are they affected?—I am disposed to think that it is only occasionally that an industry is affected by an international exhibition, and that is almost exclusively where processes of manufacture are shown, either having been covered by patents or where the amount of trade is not worth the expense of ensuring the protection by patent. At the same time, the Committee must take fully into account the difference between individual and national interest. It may be distinctly to the national interest that some well-known industry shall be represented at a particular exhibition, but the tariff, or the particular requirements of the country may not make it worth the while for British manufacturers to exhibit. The absence of a British exhibit might, on the other hand, cause the consumers of that country to assume that British manufacturers in this class were inferior, whereas the contrary might very well be the case. It is in instances of this kind that the question arises, how far certain industries may be advantageously represented at certain exhibitions at the expense of the State or by a combination of the industry in general, instead of at the sole cost of the individual exhibitor.

5586. Have you any experience as to whether certain British manufactures which have been exhibited at exhibitions have suffered from being copied by foreigners?—No, I have no personal experience of that. Of course there is a great deal of hearsay about this; one's brother manufacturers say they are being copied, and therefore they do not care to exhibit, but I have no practical experience enabling me to answer your question.

5587. Do you consider that the direct commercial results attained by the official participation of this country in international exhibitions have been such as to warrant the Government in making grants for the organisation of British exhibits?—There is little doubt that owing to the increasing tariff obstructions of the leading foreign nations it will in the future become increasingly difficult to induce producers to exhibit in markets from which they are precluded from doing regular business by the existing tariff. Individual manufacturers cannot be expected to maintain the reputation and the industrial glory of this country at their own private expense. I am therefore disposed to recommend that grants for the organisation of British exhibits should be forthcoming as being more necessary in the future than in the past. It might be necessary in this connection for the organising committees of exhibitions to be placed in the position to encourage, and, if necessary, to subsidise collective exhibits. If, for instance, the British steel industry should be represented, and the individual manufacturers in this country, for financial reasons, do not care to be represented owing to the tariff, or the dimensions of the trade, a committee of steel manufacturers should be organised who would undertake to produce a collective exhibit sufficiently representative of the leading manufacturers of English productions.

5588. To what extent would you recommend that those collective exhibits should be subsidised?—I think that would depend upon the circumstances of the particular exhibition and of the position at the time of the particular trade. I could not lay down a law for the amount. I think it would have to depend upon the size and nature of the exhibits.

5589. Would you make the manufacturers contribute anything at all towards the expense of it?—Yes, I think they should contribute something. I think they should be induced by assistance to come forward, because you can hardly expect a manufacturer to go out of his way to exhibit, when he knows not only that he is going to get no advantage out of it, but that possibly he may be prejudiced by his exhibit.

5590. Would you make him pay for space, for instance?—I would make him pay for some of the space. I would not offer him a gratuitous stand and all his expenses paid, but I would assist him.

5591. Would you assist him in one particular item of expenditure, or perhaps in more, or would you make him contribute, say, a percentage of the expenses—50 per cent., for instance, or less?—I should not like to name a sum, but I would assist him, and I would assist him for two reasons—in the first place to induce him to come forward, and in the second place to let him go away satisfied, so that he would be prepared to exhibit the next time an exhibition comes along.

5592. Do you think that you would have equally satisfactory results from private enterprise?—No, for the reasons already given, and in my opinion it is still less likely to be so in future than in the past.

5593. Why?—Because I think with these tariffs and with the enormous amount of competition we have that there is an even greater tendency on the part of our home manufacturers to stand aloof from exhibitions than there used to be. I have seen it only recently in Yorkshire with reference to our Franco-British Exhibition; they do not want to come forward.

5594. Do you think they are tired of exhibitions?—They are tired of them, and they are afraid of having their processes copied. Then, as a matter of fact, they have got their hands full, and they will not take the trouble.

5595. That being so, you have to offer them some strong inducement, do you think, to come forward and exhibit?—I think the stronger the inducement, the more likely you are to get a satisfactory exhibit. I am taking it, if I may say so, on a national line, and not on an individual line, the idea being the participation of a particular country from a patriotic point, and not from an individual point, and, therefore, you want to get in all the exhibitors you can, otherwise your country does not make a proper show from an international point of view. That is what I have in my mind.

5596. Rather than see England make a poor show, would you prefer that we should stand out altogether?—Certainly.

5597. Would you say, for instance, unless we could make a show equally as good as that of France or Germany?—Certainly.

5598. Assuming that public money is granted for the organisation of official exhibits, do you consider that the grant should be made subject to any special conditions as regards the accommodation and facilities offered by the exhibition authorities, or as to the number and quality of the exhibits sent in by British firms?—Speaking generally, I should not be disposed to advise the imposition of any conditions of this kind. The main thing to decide, it seems to me, in the early stages of a proposal for an exhibition is whether the undertaking is of a sufficiently assured character to justify the participation of this country. If that point is decided favourably, then a grant should be given which should enable a British section to be organised (either with or without a fine art section, according to circumstances) fully creditable to the reputation of this country. It is almost impossible to forecast at the commencement of the organisation of an exhibition how an English section is likely to develop, so that to impose limitations at this early stage would probably be to court failure in advance.

5599. How do you think we can ascertain whether the undertaking is of a sufficiently assured character to justify the participation of this country?—Only by minute investigation into the lines upon which the particular exhibition is going to be carried out, the persons who are directing it, what organisation or means are behind it, and how far other countries are likely to participate. That means spade work from the beginning.

5600. Have you found any reluctance on the part of British exhibitors to take part in exhibitions owing to their being organised by Royal Commissioners or by the London Chamber of Commerce?—Certainly not. I have never heard of the existence of any such reluctance. On the contrary, the London Chamber of Commerce is on the best of terms both with the Associated Chambers of Commerce of the United Kingdom individually and with the Chambers of Commerce of the Colonies; so that the intervention of the London Chamber of Commerce, far from leading to jealousy, would undoubtedly give confidence to any exhibition with which it was connected, and would tend rather to increase than to decrease the number of exhibitors.

5601. We have had witnesses here who have stated that the London Chamber of Commerce, and also the various Chambers of Commerce throughout the country, have not the influence they ought to have in inducing the best firms to participate, and that a Royal Commission has greater facilities; what is your opinion?—That is not my opinion, if I may venture to say so. I think the difficulty in bringing the exhibitors forward is

rather that which I ventured to point out in answering your previous question. I do not believe it is because the Chamber or any body in particular approaches them; it is rather an inherent reluctance to come forward. I do not think that any other body could induce them more effectually than we could—I do not mean to say less effectually than we could, but I do not think the inducement would be any greater.

5602. Then, provided they had a sufficient inducement, do you say it is quite immaterial whether it is a Royal Commission or the London Chamber of Commerce which is promoting the exhibition?—I do not insist that the London Chamber of Commerce is the only body that can promote an exhibition—far from it. But on the general question I am disposed to think that another class of body would be better than a Royal Commission. Of course, I speak as a manufacturer and as a commercial man purely; but I think, if I may say so in a word, that the lines of the French Committee are the best.

5603. Do you think there was any opposition from the North Country manufacturers arising through any jealousy of the London Chamber of Commerce?—No; for the reasons already stated I should say certainly not. There may, perhaps, have been some slight feeling of jealousy some 20 or 25 years ago, before the methods of the London Chamber of Commerce were fully realised and understood. Possibly, if that ever did exist, it was because our Chamber was only then itself in its infancy. Our Chamber is not one of the oldest Chambers, and we have only just kept our twenty-fifth anniversary. Some of the other Chambers who were a good deal older than we were naturally might look askance at a new Chamber coming forward, and might say, "What do you know about it?" That is the only possible reason for it, if there ever was that feeling. The successful manner in which the London Chamber of Commerce has since its foundation co-operated with other bodies, and the care it has always taken to give full representation in any joint enterprise, has, I am satisfied, completely done away with any feeling of this kind which may have existed when the London Chamber of Commerce was first formed. In illustration of the confidence reposed by other bodies, and particularly by the Chambers of Commerce in the North, in any project which the London Chamber of Commerce undertakes, I should like to mention the success which attended, three years ago, the visit to this country of the Canadian Manufacturers' Association, under the auspices of the London Chamber. It was known in advance that the Canadian manufacturers were not only Protectionists, but were, in many instances, active competitors of British producers; nevertheless, the suggestion of the London Chamber of Commerce that these gentlemen should be received and entertained throughout the manufacturing districts was most cordially taken up—particularly, I repeat, by the Northern Chambers of Commerce. I could give you a list, if you like, of the towns they visited. We had the heartiest welcomes, and Lord Brassey will bear me out that they were only too glad to receive the Canadians and show them all their works. (*Lord Brassey.*) Yes, I can confirm that.

5604. When you have invited the Chambers of Commerce throughout the country to assist the London Chamber of Commerce in procuring exhibitors for the various exhibitions in which you have been interested, have you found that they have come to your assistance and done really good work?—(*Mr. Charleton.*) As far as I could say, yes; but I am unable to give you any particular details.

5605. Do you know whether they have been able to bring in important exhibitors?—Yes, I think they have certainly done that; but I cannot give you any detailed list. I can obtain a list for you, of course.

5606. You cannot, offhand, say whether they have, as a rule, supplied you with good exhibitors, or disappointed you?—No, I am afraid I cannot give a very definite answer to that; but I can certainly say they have rather favoured us than otherwise. But there again the same point of reluctance comes in.

5607. Do you think that the appointment of a Royal Commission would constitute a satisfactory method of dealing with the organisation and preparation of a British exhibit?—No. I do not think that Royal Commissions, on the lines on which they have been formed in the past—namely, more or less of an official nature—have proved to be attractive to the average exhibitor. I think it would be preferable to follow the lines adopted either by the London Chamber of Commerce or by the French Exhibitors' Committee, under which those who are conversant with exhibition work, and whose names appeal to manufacturers and buyers, would practically constitute a co-operative association for the purposes of organising and carrying through a British section under a Government grant; in other words, the management should be placed in commercial and not in official hands.

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5608. As you are aware, on Royal Commissions there are a large number of very distinguished persons as a rule; do you think those distinguished names help to influence exhibitors?—Certainly I do. I should like to enlarge what I have just said by stating that many of these distinguished names would not only be desirable but essential to the success of such a body. I am not thinking of the particular work of the standing body, but of the incidental work of each individual exhibition. I would not take a big name simply because it was a big name, but I would take those big names that do represent large interests—not only commercial interests, but even what are, in a sense, the higher interests of an exhibition, namely, education, art and science.

5609. Are you prepared to submit a definite scheme for dealing with international exhibitions in the future?—In general terms, yes. I would suggest the adaptation to English requirements of the permanent Committee of Exhibitors which has been formed in France, and which has undoubtedly been the chief cause of the great success of the French sections at the various exhibitions in which the French Government has participated. Other witnesses, notably Mr. Serena, have already given the Commission details of this machinery, and I have no hesitation in recommending its adoption by, and adaptation to the requirements of, this country.

5610. Would you recommend its adoption without alteration?—It might require a certain amount of revision.

5611. This Committee has heard a great deal about the French Society?—You know all about it, do you not?

5612. It has been mentioned to us in evidence two or three times. You are probably thoroughly familiar with it, too. Would you recommend its being adopted without further assistance from distinguished persons, from experts, or from your own Chamber?—Practically, this French Committee combines all that. It has the leading men upon it, it has members of the Chambers of Commerce, it has manufacturers; in fact, it has all classes of men interested in exhibitions. I do not know whether a copy of the statutes relating to the Committee has been placed before you, but I should be very pleased to hand you this copy if it is of the slightest use to you. I think probably that you may have it.

5613. Thank you. Our secretary informs me that we already have a copy. Why should it be more likely that this country should retain its commercial supremacy by taking part in exhibitions when the position we have attained in the commercial world has not been produced, so far, by participation in international exhibitions?—Because it is to-day far more necessary than it was formerly to keep abreast of foreign competition and to meet by further activity on our part the great energy which has been shown by foreign industries, most of which did not exist on any important scale 50 or 60 years ago. I contend that it is particularly in those countries from which English manufacturers are to some extent excluded, either through tariffs, bounties, carriage facilities, or other methods, that English manufacturers should be able to show by State assistance that their productions and prices, apart from whatever tariff difficulties they may have, are equal, if not superior, to those of any other manufacturers.

5614. Speaking generally, is it not the fact that the largest and best of the English manufacturers are the least disposed to take part in exhibitions?—Yes, I am disposed to think that it is so.

5615. For the reasons that you have already given us?—Yes.

5616. Should we not expect the leading firms to take their share in the expense of international exhibitions?—Not necessarily. Firstly, because of the extent of their reputation, which to some extent enables them to dispense with the advertisement of an exhibition; and, secondly, because in certain markets, owing to the difficulties created by tariffs, bounties, shipping rings, and other obstructions already alluded to, these firms are aware that they are precluded from transacting normal business during the time when no exhibition is being held. Therefore, from the purely business point of view, these firms are not interested in the

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markets represented by the exhibition, and do not feel called upon to encourage expenditure for purely patriotic purposes.

5617. If their reputation is to be maintained, must they not participate as a matter of self-defence, as it were? If an important firm which has already taken the highest awards stands out and lets younger and less important firms take those awards, would that not be distinctly to their disadvantage?—Obviously they run that risk, and I fancy that some of them do make a point of keeping themselves before the public by these exhibits. On the other hand, there are a great many who sit upon their reputation, and who are not disposed to advertise in any form, and who will not stir themselves to come forward. I think probably that will be your own experience.

5618. Do firms participate chiefly to secure orders at exhibitions, or to maintain a position which they have already secured?—For both reasons.

5619. What is your opinion of the awards that are given at exhibitions? We have had witnesses here who attach no importance to them whatever; what do you say?—I attach very little importance to them.

5620. Is there any proof that foreign nations benefit by holding exhibitions?—I am not aware that it is possible to elicit specific proof that exhibitions in particular have assisted the development of foreign industries in competition with British, but there is no doubt that the number of exhibitions held in various countries is distinctly on the increase; and that fact can surely be taken as proof that foreign countries, whose subsidies are always larger, and even very much larger, than those simultaneously contributed by the British Government, do derive practical benefit sufficient to justify the continuance of these subsidies. Consequently the English Government, in my opinion, has no option but to maintain by an increasing scale of expenditure the position and reputation of British industries, which would be distinctly imperilled by their absence from these exhibitions.

5621. Can you tell us what the Government grant should be? Have you arrived at any opinion in your own mind as to what the British Government should give to assist in forming a large and important British section?—Generally speaking, do you mean?

5622. At a large international exhibition?—I am afraid I should not dare to mention the amount. I think it would depend entirely upon the size of the exhibition.

5623. Do you think that in dealing with the British exhibits sent to a foreign country it would be a good thing to ascertain early what goods it would be hopeless to push and what goods there was a prospect of pushing?—English business enterprise may be relied upon to effect this to a considerable extent. This, however, would not operate where tariff obstructions are excessive, as, for instance, in the United States of America. In a case of this kind the exhibits should be considered more from the point of view of the general reputation of the country than with the object of increasing business against insurmountable difficulties. The class of goods exhibited would require to be those maintaining the general reputation of this country throughout the various divisions into which the particular exhibitions may be divided.

5624. May I ask whether you think that the benefit of participating officially in exhibitions takes the form rather of keeping one's own country before the eyes of the world than of getting specific orders for individual exhibitors?—Yes. That, I contend, is the principle which should actuate His Majesty's Government in making adequate grants to these exhibitions, leaving it to the private exhibitor to make what business he can under the most favourable circumstances.

5625. Do you or do you not advocate that large financial grants should be made by the Treasury in favour of international exhibitions, such as were given in Paris and St. Louis?—Not necessarily, but on the system which I have advocated of a standing exhibitors' committee the Government would only be advised to participate in exhibitions which promise to be important and successful. The amount of the grant would be, therefore, to some extent, a secondary consideration, as it is probable that by good management, on the lines of that introduced by the London Chamber of Commerce, much of the primary expenditure would be reimbursed, but it is essential that the guarantee of the grant should be given in the first instance, and in an early stage of the organisation of the British section, in order that time may not be lost and that exhibitors and manufacturers may be enabled to commence the production of their exhibits at the earliest possible moment, with every assurance that it will be satisfactorily dealt with.

5626. In recommending the adoption of an exhibitors' committee, which has proved so successful in France, do I understand you to recommend that they should be under the control of the Board of Trade?—No. I do not see the necessity for the intervention of the Board of Trade at all, either by exercising control or in co-operation. What is wanted is a committee which shall secure the confidence of exhibitors, and with this object I think the less Departmental intervention there is the better.

5627. Do you think that if you invite a Government grant you can very well do without a certain amount of Government control and Government assistance?—Assistance certainly; not control. My answer to your last question is not intended to be offensive in the least to Government Departments—far from it—but I wish to draw a distinction between control and assistance. I should like to see a body formed in the same way that this French body is formed, so that it should be a practical, working, experienced body, with a knowledge of these particular subjects. I should like to see it in touch with the Government Departments. If I may put it in a homely way, I should like to see it have the blessing of the Government Departments—especially of the Board of Trade. I should like to see the Board of Trade represented upon it, either by some past permanent official who would be willing to give his time to it, or by somebody in the Board of Trade. I should like to feel—although we have not anything of the kind in this country—that such a body has been, to use the French expression, *reconnu d'utilité publique;* but that beyond that it should be allowed to do its own work. As I believe you are aware, when an exhibition comes forward in France this body takes it up. As soon as they have ascertained, by what I have ventured to call before spadework, that any particular exhibition is likely to be sufficiently important for France to be represented, they form a particular committee to further investigate and see how far the country should be represented. Then they go to the Minister of Commerce and state that this is an exhibition which should be supported by the country, and they leave it to the Government to decide whether they will intervene in such a sense as to make it official and appoint a Government Commissioner. If the Government takes it up, this Committee disappears *ipso facto;* but as a rule the Government immediately calls upon them to take up their functions again, and then it is under Government control.

5628. So that it is really the Government which forms the Commission?—No. The Government does not form the Commission; the Committee forms itself, but it is *reconnu d'utilité publique*. I have a copy of the decree here. The decree is dated and signed by the President of the French Republic.

5629. Who is it that takes the initiative in the first instance?—This standing committee takes the initiative in the first instance. I believe the history of the whole thing is contained in one of these French books which I have here, showing how it first arose, and so on. I believe it first arose from a meeting of persons interested in exhibitions.

5630. I gather that you would wish to see it done identically in the same way as the French?—Yes, candidly I would.

5631. (*To Lord Brassey.*) What is your general view as to the participation of the United Kingdom in international exhibitions?—(*Lord Brassey.*) I think the evidence is clear that in the judgment of those who are responsible for public action the participation of the United Kingdom in international exhibitions has been always approved. I go back to the first exhibition with which I had personally to deal—namely, that which was held in France upon a date which was fixed to synchronise with the Centenary of the French Revolution. At that time Lord Salisbury was Prime Minister, and he held, as the head of a Government under a monarchial system, that it was hardly consistent to give direct Government participation and sanction to the exhibition which was proposed to be held in France; but he strongly desired, in the interests of the industries of the United Kingdom, that we should participate and should be represented at the exhibition. Lord Salisbury accordingly communi-

cated with the then Lord Mayor, Sir Polydore De Keyser, and invited him to take suitable action with a view of encouraging exhibitors to take part in the proposed exhibition in Paris. The Lord Mayor asked me to associate myself with him in his efforts. I had much pleasure in doing so, and I remember with satisfaction that although it was without direct sanction on the part of the Government, nevertheless our country was well represented. I take a very much later instance—namely, the St. Louis Exhibition. That exhibition was held in a country which is strongly Protectionist; nevertheless the Government considered that it was desirable for the purpose of sustaining the general reputation of this country as a leading industrial nation, that we should be well represented at St. Louis. The desire of the Government to encourge British participation in the St. Louis Exhibition was attested by the very liberal grant which was made in aid of the British Section. So far as to the attitude of the Government of this country in regard to exhibitions. Then I turn to the general policy of all foreign Governments. With one voice they have signified their approval and their desire that their several countries should be well represented at international exhibitions. I therefore say, so far as public opinion is expressed by the action which Governments take, it is shown both in our own country and in all other countries that public opinion approves of the participation of the industries of the several countries in international exhibitions. Another clear evidence in favour of participation in international exhibitions is seen in the fact that those engaged in industries and in art production in all countries are found ready and eager to show what they can do when international exhibitions are held and their participation is invited. It is quite true that the tariffs are severe in Protectionist countries, and that our industries encounter considerable obstacles at the frontiers of those Protectionist countries; but the difficulties which the British exhibitors encounter in those countries are equally serious in the case of the exhibitors of other foreign nations. For example, if a French manufacturer exhibits in Germany, he does so with the knowledge that any trade he may hope to do with Germany is subject to the German tariff; and, similarly, if any German exhibitor exhibits in France, he knows that any goods which he may send to France will be subject to the French tariffs. In regard to the tariffs, British exhibitors are obviously in as good a position in every market as all other foreign manufacturers are; we have the position in all countries of the most favoured nation.

5632. I gather that you are distinctly in favour of this country participating in international exhibitions?—I am. I support that view by looking at the subject from another standpoint. I ask myself this: In so far as trade is affected by participation in exhibitions, what would have been the result that would have followed if we had systematically abstained from participating in international exhibitions? If the exhibitions which have been held at frequent intervals in all the leading countries ever since the exhibition of 1851 had been signalised by the entire absence of participation of British industries, many opportunities of calling the attention of consumers to the high quality and cheapness of British goods would have been lost. The general position of British trade in recent years has been of a very satisfactory nature. I do not trace the success of British industry principally to the fact that we have participated in exhibitions; but we have participated, and I hold that our effective participation has conduced, along with a number of other perhaps more important causes, if not to the prosperity, at any rate to the activity of British trade at the present time. May I say this with regard to the tariffs in relation to exhibitions? Those who take the strongest view in favour of Protection would concur in this, that under any tariff system an industrial country such as ours can hardly look for its chief market in countries, which, like ourselves, are very highly organised for the purposes of industry. We have to look for our chief market, not for all our goods, but for many descriptions of our goods, in countries which are industrially less advanced. The exhibitions that are held, it may be in the United States, it may be in France, it may be in Germany, are attended as we know by large numbers of persons coming from these countries in a less advanced industrial condition. Visitors from South America, for example, are at all times very numerous in France, and when an exhibition is held in Paris those persons visit that exhibition, and there, if our goods are effectively exhibited, they see what we can do in quality and in cost; and that has an effect, certainly, in promoting the expansion of British trade in South America. The same remark would apply to the presence of travellers from China or Japan; they may see British goods at an exhibition held in Paris, and that may stimulate the sale of British goods in the countries from which those travellers come. When we were making our preparations for the Milan Exhibition, my friend Mr. Serena asked me to associate myself with him—I was honorary president of the committee—in the endeavour to induce British exhibitors to take part in the Milan Exhibition. We spent a day in going round to the leading people in the upholstery and furniture businesses in London, and we obtained no support. These men said, "It is idle for us to prepare some work which shows our workmanship at its highest, when we shall never obtain a market for these things in Italy. There are the tariffs, and then, besides that, in skilled carvers Italy is better equipped than we are." And so they did not participate. But I wish to say this upon that point, that the British Chamber of Commerce of Genoa—which I was instrumental in founding, because we have a very large business in Genoa and Sardinia—advised us that there was a great and increasing demand in Italy for goods, not of the *chef d'œuvre* description, but ordinary furniture such as is used in houses which we all occupy. I have been assured by the President of the British Chamber of Commerce in Genoa, who is himself a Scotsman, that if we had participated there might have been established a very large market in Italy for goods of the ordinary description such as are manufactured in large quantities by firms like Maple and others. Upon this point of the desirability of participating in exhibitions with a view of sustaining the general reputation of the country and of particular firms, it is interesting to note that at Milan and also at the Bordeaux Exhibition (I am the president of the British committee for the Bordeaux Exhibition) the shipbuilders of this country made a very considerable effort. They have not looked in either case to large orders for the building of ships either from Italian shipbuilders or from French shipbuilders; but they have looked to the fact that to participate sustains their reputation, and to abstain tends to bring others into note while they are less prominent; and therefore they thought it good policy to participate in these exhibitions. I quite recognise that shipbuilders have particular facilities and resources for making a good appearance at exhibitions. It is part of their business to make a model of every ship that they build, and those models are hanging in their model room, and they have simply got t otake them down and away they go to the exhibition, and a good exhibit is made at no cost. It is quite a different thing to going to Hampton, we will suppose, and asking him to entertain the idea of making an expensive sideboard specially for an exhibition. But still, there is the fact that Armstrongs have made a great effort to appear suitably at Bordeaux, without looking to any immediate result from that exhibition. My friend Mr. Charleton said something about the jealousy of the British manufacturer who refrains from participating in exhibitions lest his works and his methods should be copied by his competitor. It is certainly to be noted in that connection that there is more jealousy on the part of British manufacturers of one another and of external foreign competitors, than there is on the part of manufacturers in any other country. It is a well-known fact that there is a largeness of view about those matters, for instance, in the United States; the manufacturers there exchange experiences with one another with a liberality which is wanting in this country, and perhaps a change here in that respect might be desirable.

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5633. Could you give us information on this very important point: Have you any suggestions to offer as to the constitution of a standing committee for the organisation of the British section at international exhibitions?—I agree with my friend Mr. Charleton; I think that a standing committee is desirable. I think it should consist not only or even one may say not chiefly, of persons nominated by Chambers of Commerce. I think if you want to have a strong and effective committee, communications should be made to the leading industrial organisations on each occasion when a committee is proposed to be formed, and they should be invited to nominate a representative. For example, if I were constituting a committee for a large exhibition, I should invite the Iron and Steel Institute to nominate a representative, I should invite the Institution of Naval Architects to do the same, the Institution of Civil Engineers might do the same, and the Institution

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of Mechanical Engineers the same. In that way I should form a committee which would be thoroughly representative of all the industries; associating with them, of course, representatives of the Chambers of Commerce. That is the sort of committee I should like to see.

5634. What views have you as regards a grant of public money to aid in the participation?—It should not be unduly lavish. It is impossible to say in any general way what the amount should be. You have got to take into consideration the character of the contemplated exhibition, the scale, and many other things. I cannot see that you can determine beforehand the particular amount which should be given from time to time. I can only say this, that under the admirable management of Mr. Serena the grant which was ultimately obtained from the British Government of £10,000 was far more than sufficient for that occasion; under his admirable management half the sum would have been sufficient. In another case—we may suppose the case of an exhibition in Paris—the demand and the necessity for an appropriation would be greatly increased. We should have an Art section, and paintings of the British school would be exhibited there, and you can see at once that the expenses must be very much greater. So I do not think we can say anything specific as to the amount. I hope that when the occasion arises the Government will not withhold that sufficient assistance which it ought to give. There is only one thing more with regard to grants which I should like to say. As an old official, I can hardly suggest that if a grant is made the Government should be without the means of controlling the expenditure.

5635. In that respect you do not agree with Mr. Charleton?—No.

5636. What do you say as to the awards that are given at exhibitions?—I will just say this—that the value of an award depends entirely upon the discretion with which awards are made. At the Milan Exhibition I think that hardly an exhibitor went away empty-handed; they all seemed to me to have received some kind of award. A thing which is universal cannot have the same value as some other thing which is given with more discrimination and with a less lavish hand. Nothing could be said generally, I think, with regard to the awards.

5637. (*Mr. Harris.*) As our time is running very short, I will confine myself to three points upon which I should like Mr. Charleton to clear his evidence, if he will. In one of the questions put by Sir Isidore Spielmann you were asked whether you thought that direct commercial results from exhibitions warranted our participation. I thought you did not quite face that question, although you showed that you thought well of exhibiting. Now, I should like to know whether you think that direct commercial results follow from exhibitions which warrant our participation commercially?—(*Mr. Charleton.*) On the whole, yes.

5638. Now, as to the French Committee which you put forward as a model of organisation; and as to your idea of the best organisation:—is the absolute absence of the Government which you postulate consistent with your belief that after all it is a very good thing to have big names on a Royal Commission? Do you not think that really when you go into the matter you will finally come to some arrangement whereby the Government has something to say in the permanent organisation?—I think the Government might have something to say; but my idea is rather that the actual control should not be with the Government Departments.

5639. No, not necessarily with the Government Departments; but should not the Government have a predominant voice on the committee?—I think, so far as concerns the point of exercising control over a grant of money, they should; but as to the general organisation I think otherwise. May I say with regard to the big names that the idea is, I think—at least my idea is—that it should be a standing committee—that is to say, that it should not be specially appointed for each exhibition, but that there should be a standing organisation similar to the French one. While Lord Brassey has been giving his evidence I have been looking up this very point in the history of the French Committee; I will not read it to you, as it is too long, but it is to be found on page 25 of the book. There you will see the way in which this committee was formed.

5640. On your own showing, does not that French Committee, when it really comes to business, come back into touch with the Government, and is not the Government really the motive power?—No, I do not think so; I think it is the other way about. It does come into touch with the Government, because it has the blessing of the Government Departments, especially of the Ministry of Commerce.

5641. That being so, does it not really get its motive force from that blessing? Is not the blessing the petrol, so to speak?—No, I do not think so. It is not exactly the petrol, but it is a mark of appreciation and approbation on the part of the Government. (*Lord Brassey.*) The Chambers of Commerce are much more closely connected with the Government in France than they are here; and I certainly think that they derive importance from their connection. (*Mr. Charleton.*) The French committee is a heterogeneous body, not confined, as you are aware, to Chambers of Commerce, but made up of all sorts and kinds of people. I have gone carefully through the list. There are included in it all sorts and kinds of *industriels, fabricants* and men of all kinds of business attainments; and not only those, but also, as Sir Isidore Spielmann mentioned just now, men with big names—names connected with the various sciences and arts and industries; and also Government men and legal men. I see they have a legal committee, too, which takes up any legal points that come before them; they call it the *Conseil Judiciaire.* (*Lord Brassey.*) In reference to any committee, whether a standing committee or an *ad hoc* committee whether constituted *ad hoc* for a particular exhibition, or whether it is a standing committee, the Government should have a voice in the selection of the committee, taking care that the selection was representative; but having once constituted the committee I think the Government should leave it to the comaction as they may think fit.

5642. (*Mr. Waring.*) I do not think I quite caught the last words?—I think in the constitution of any committee whether constituted *ad hoc* for a particular exhibition, or whether it is a standing committee, the Government should have a voice in the selection of the committee whether constituted *ad hoc* for a particular sentative; but having once constituted the committee I think the Government should leave it to the committee to deal with the matters referred to them.

5643. (*Mr. Harris.*) This is the third point on which I want enlightenment from you, Mr. Charleton. In one reply you suggested that you would rather see British representation absent than bad, and in another you said if Great Britain is absent that would be mischievous to the whole trade of Great Britain. Is there not some inconsistency in those replies? Would you mind pinning yourself down to one thing—should Great Britain be represented indifferently, or should we stand out altogether?—(*Mr. Charleton.*) I did not mean to be inconsistent, and I am afraid I have explained myself badly. I will say yes to your last question; if Great Britain cannot give a decent exhibit, it is better not to be there at all.

5644. (*Mr. Malcolm Ramsay.*) Do I rightly understand, Mr. Charleton, that you advocate the official participation of this country in exhibitions mainly on general grounds?—Yes.

5645. Those being, first, the general effect on international relations, and, secondly, the general commercial effect?—Yes.

5646. And that in your evidence you are approaching exhibitions rather from the general standpoint than from the point of view of the individual trader; is that correct?—Yes, it is quite correct.

5647. Would you say as regards the individual trader that some trades stand to gain a great deal more business advantage from exhibitions than others?—Undoubtedly.

5648. Then I think you have said, or indicated, that when business is brisk there is a greater difficulty in inducing exhibitors to come forward?—That is so.

5649. When you are advocating participation on the ground of the general advantage of the country, you will be faced with two kinds of exhibitors—first, the people who would go in any case, and, secondly, the people who do not find it to their own interest to go, and whom probably you would have to subsidise in some form in order to induce them to come forward from patriotic motives. Would you say that is so?—That is so.

5650. In settling how you are going to spend your grant, would you draw a distinction between various kinds of trades, and would you be inclined to let those exhibitors who are willing to go in any case to bear a

larger share of the expenses than the people who are not willing to go? For instance, would you subsidise particularly the heavy steel trade, or perhaps the textile people, who might not want to go individually?—I think that would depend a great deal upon the examination made by the committee into the details of a particular exhibition, and I think it would also depend to some extent upon the expenses which would have to be incurred by the different classes of exhibitors. Some men may refuse to exhibit, from that unfortunate apathy which I think we all agree exists amongst British exhibitors. Others might refuse to go, because in their particular instance—and you mentioned steel—the heavy expenses, not only of getting together the exhibit, but of getting it to the spot, would preclude them for two obvious reasons—one, the question of time, and the other, the question of cost. Those men would probably have to be considered more leniently than a man whose exhibit is packed in a small parcel. Take my friend, Lord Brassey's, instance of the shipbuilder with his models hanging round a wall, who simply moves them from one exhibition to another. I think you would have to take it in a sort of sense *pro rata* to the position of the particular exhibition.

5651. I do not think you have been asked at what sort of intervals you would suggest that the country should participate in exhibitions. I understand you are looking at these exhibitions rather as a national advertisement; as at first-class exhibitions the cost to the public may be very heavy, I suppose you would think that it would not be necessary to exhibit on a large scale for national reasons at very frequent intervals?—Not too frequent; if the exhibitions are too frequent the public loses interest in them.

5652. Are you prepared to specify the sort of interval? Would you think one in ten years sufficient?—I should think rather less than that. (*Lord Brassey.*) I would say once in five years. (*Mr. Charleton.*) And I would say once in five years, but that is only my individual opinion. I should think an international exhibition once in five years would not be too often. (*Lord Brassey.*) No, it would not. (*Mr. Charleton.*) But then again that depends very largely on the place, and it also depends on circumstances. If you are going to have it in a small town which is difficult of access, that is quite a different thing to having it in Paris or in London. For instance, next year at our Franco-British Exhibition we hope to get the whole world to come to it; we have got a huge place, and we are taking exceptional care to get ahead of time. That is an exhibition that might be repeated at more frequent intervals than one held in a small town. Then, again, there are political questions that arise from time to time.

5653. I suppose you contemplate that the committee you suggest should exercise very autocratic powers of selection as regards the exhibits which it receives?—Yes, I would arm it with full powers.

5654. You would arm it with full powers?—Yes, very full powers.

5655. Do you think that manufacturers generally would come into a scheme which involved a committee armed with powers of that kind?—Yes, and doubly so if they have the predominant voice.

5656. You think our manufacturers will drop their isolarity, so to speak, and submit to adjudication by a body of that kind?—I think they will. One of the reasons why I object to making this committee bureaucratic in any sense is because that will keep them off. If you will follow out what my friend, Lord Brassey, says, and ask the Iron and Steel Institute, the naval architects, the big trades and others to have a representative upon that committee, and with them members of the Chambers of Commerce and commercial men generally, and then those higher names that represent art, science, and so on, and then let them all know that they, and they only, have the preponderating voice in the matter, I think you will get them to come; but the moment you give them to understand that they are going to be ordered about, then they will draw back.

5657. I asked that question because that seems to me one of the great difficulties in the way of our adopting in this country either the French or the German system, each of which is more autocratic as regards the individual than anything we are accustomed to?—The German system differs very greatly from the French. The German system is the iron heel which goes down to the conscript and everything else in the country. (*Lord Brassey.*) With regard to the Bordeaux Exhibition now being held, the successful and effective participation of Great Britain in that exhibition is mainly due to the fact that Sir Philip Watts, a gentleman of great eminence, personally interested himself in the matter. Had we not had the advantage of his powerful influence, the representation of British interests there would have been very different.

5658. (*Sir Isidore Spielmann.*) Is it an important exhibition?—Very. It is an important maritime exhibition.

5659. How were the expenses met?—The exhibitors who have taken part are all powerful firms, such as Armstrongs and other great firms, and to them the expense of sending their exhibit is a matter that they are perfectly able to deal with. They have not to ask for any assistance, and do not require it.

5660. Has each firm paid its own expenses?—Yes. The Armstrong firm think it is policy to be represented at Bordeaux. To them the question of £1,000, or whatever it may be, is neither here nor there. Of course it would have been quite different if it had been an exhibition of small articles.

5661. (*Mr. Waring to Mr. Charleton.*) There is just one point on which you have expressed yourself on which I should like to gather an explicit idea of your view. You mentioned the point that if we were not well represented we ought not to be represented at all, but I take it that you are absolutely clear that we ought to be represented, and that it is the business of the nation to see that we are well represented?—Certainly, that is my view.

5662. It is your view?—Yes, strongly.

5663. As to your suggestion with regard to the control of exhibitions, you are clearly of opinion that the old method of a Royal Commission would be ineffective in the future?—I do not think it would be so effective as the other process; it is too slow.

5664. It is too cumbrous and it is not efficient?—Yes, and it does not get the right men upon it. In a word, what I should like to see is the certainty of the British exhibits at one of these great exhibitions coming up to the level of the French exhibits.

5665. Or better?—Or better. It is a long way to get better, but still we may hope.

5666. There is no reason why we should not?—No, but their whole system, the general arrangement and organisation of their show, is very much better than anything we have ever done yet. I do not mean to say that in certain individual instances we are not better than they are, but taking the general appearance of the whole exhibit and the artistic appearance of their exhibit—their cases and their lighting and their decoration, and everything else—their exhibit is very much better. That has been done by this organisation.

5667. That is a powerful argument in favour of a different form of control in the future?—Yes, it is.

5668. It indicates that the old method of handling exhibitions is inefficient in the light of to-day?—Yes.

5669. Clearly so?—Yes.

5670. You feel that we should base any future action on the reconstruction of the control of the organisation on French lines?—Yes.

5671. That is the best organisation of which you are aware?—In my humble opinion they appear to me to be working on the best lines.

5672. You are also quite clear that Government control should be limited to giving the exhibition (1) the *cachet* of its countenance, and (2) its financial help?—Yes.

5673. But, as Lord Brassey expressed it, the full responsibility and the direct responsibility should be centred in the important body that will be appointed from amongst various manufacturers and commercial men?—Yes, and in the men on the standing committee.

5674. That standing committee which you speak of should have full powers of action left to it, I assume?—Yes.

5675. The Government not interfering except on the two points—the point of giving it its name and the point of financially helping it?—Yes.

5676. (*Mr. Malcolm Ramsay.*) Is it not the case that the only change you advocate is in the composition of the body which is to administer the grant? I believe I am right in saying that hitherto when a grant has

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been given by Government no Government Department has claimed to exercise any control over the manner in which it should be spent?—That may be, but there is no existing permanent body to my knowledge.

5677. The money has been paid over to the Royal Commission, who have accounted for it without any interference?—I am asking for information, rather. Has not the Royal Commission hitherto been appointed *ad hoc?*

5678. Yes, I agree in that?—I want to see that done away with. I want to see a permanent existing body, not a Royal Commission, but a committee—an organising body.

5679. The only point I wish to make clear is that as far as finance is concerned the money has been paid over to the body which has been responsible for managing the exhibition in the past, and no question has been raised as to the precise way in which it should be spent. There has been no interference in the past, has there?—No.

5680. (*Mr. Waring.*) I do not quite recognise a similarity between the body suggested by you for the future and the composition of the past body. The composition of the past body has always impressed me as being that of a body which was more connected with the Government, and which had not that clean detached line which I take it is suggested by you?—Yes.

5681. Hence one's point in trying to emphasise that financial matters should be left absolutely with the body, whatever it is. I quite recognise that it has been so in the past, but it is suggested by you that it should be a different body in the future. There is another point one would like to have your views on. It is the fact, I understand, that in Germany and France a great deal of money is contributed by the Government to support the various exhibitors in defraying the cost of their exhibit. Although Lord Brassey said just now very clearly that, tariff reform or no tariff, we are not in the same position as another country, still there is a certain penalty, is there not, or a handicap on the English manufacturer if he is not placed on something like a comparative basis with the manufacturers in other countries, and is not receiving something like comparative assistance towards the cost of his exhibit?—Exactly; he would be handicapped to the extent of that difference.

5682. Would you suggest that that should be taken into consideration, and that he should be placed upon something like a comparative basis?—I think your standing committee, when you have formed it, would make itself acquainted with these various processes. and would endeavour to bring your organisation in this country to a similar level.

5683. I take it that your view of that committee is that the initiative would proceed from the committee clearly, and that the recommendation would proceed from that committee to the Government as to the sum which they thought the special exigencies of a particular exhibition demanded?—Exactly. I think that, as hitherto, the Government have left the conduct of the grant to the particular commission dealing wih the exhibition, which commission has been chosen specially for each exhibition, doubly so the Government might entrust this even more experienced and standing body that you are going to form with a similar disposition of the funds.

5684. (*Mr. Algernon Law.*) If you leave that to the discretion of the committee, does that not affect the amount that would be granted to the committee for a particular exhibition? If they are going to pay a large proportion of the exhibitors' expenses they would want a very large grant, and if the circumstances only suggest small grants the grants would be very small accordingly. Would you not arrive at a decision and then apply to the Government for a particular grant, and then would you not have to explain to the Government why the grant was so large or so small, or less large than usual?—Yes, I think so. I think very full information should be given to them—naturally every information should be given to the Government.

5685. Would that information be acquired at the time the exhibition was announced?—At the earliest possible moment.

5686. Would you make preliminary inquiries beforehand by means of the permanent committee?—Yes, that is exactly what I would do. I would adopt the French system. The moment an exhibition is announced anywhere this permanent body, existing either in this building or in any other building, would at once form a small committee or send somebody to find out what the exhibition means and what is its importance. If they find it is worth looking into, they will take it to a higher committee or to the full body, who would then consider whether it is worth while for us to be interested in the exhibition. Then, having done that, they will make up their minds how much money it is likely to cost and how many exhibits they are likely to get. Only they will begin with that *ab initio*, and they should not do what was done unfortunately at the time of the Milan Exhibition. There was a tremendous fight then, as you have been told in this room, to get the Government to give anything at all. Finally something was extracted from the Government, but the whole thing was too late to enable this country to make a proper show. Now by this system that would never happen.

5687. (*Mr. Malcolm Ramsay.*) Would the system you suggest lead to more or less frequent applications for Government grants?—I think that would depend entirely upon the importance of the particular exhibition. It would be always open to the Government to say, "No, we are not going to adopt your suggestion; we do not think this is good enough." But I think the wisdom of the committee would very soon be able to show itself. I think they ought after a time, at all events, to be wise enough not to approach the Government and ask them to subscribe to something unimportant. It would be against the whole character of their existence, and against the advisability of our participation in exhibitions, if they went indiscriminately to the Government and asked for money for any exhibition that turned up.

5688. (*Mr. Algernon Law.*) Have there not been many criticisms of our participation in Milan; and has it not been said that that was not an occasion on which we ought to have participated at all?—I do not attach much importance to those criticisms, whatever they were. I thnk a good many of them were very ill-natured. I say the Milan Commission—not because I was upon it, for I was not able to do very much detail work, as I had other work to do in connection with my Chamber—I say I am perfectly certain that that Commission did its best, and I am doubly certain that my friend Mr. Serena did everything he possibly could. It was all owing to the work of Mr. Serena; and the very best that could be done for Great Britain was done at the Milan Exhibition.

5689. (*Sir Isidore Spielmann.*) They have returned half the amount of their grant, have they not; why did they return that money?—We have not yet the actual figures, but something like half the grant has not been spent, for the simple reason that the money was obtained too late for us to be able to make use of all of it—I do not mean to spend all of it, or lavishly to spend all of it, but for it judiciously to be made use of.

5690. There is one last question I should like to put to you: Are you satisfied with the way in which the International Exhibitions' Committee of the London Chamber of Commerce have hitherto carried out their work?—Yes, I am. I think they have done everything they possibly could to foster and to assist exhibitions, and to take the lead at some exhibitions. I have got a list here of a good deal that they have done, but I suppose you have already had that information. Our Exhibitions' Committee is a committee of the Council; it is one amongst the many other committees of the Council, and it is there to deal with these matters, as I believe you are aware. These committees are gone over every year. Names are withdrawn and other names are put on, and the committees are brought up to date as well as they may be. The Exhibitions Committee, in the same way as all the other committees, then meets and elects its chairman. It rests with each committee to elect its chairman out of its own body; but this committee and all others are subject to the Council, and report to the Council.

5691. Who is the chairman of the International Exhibitions' Committee?—Sir Albert Rollit is at present the chairman.

5692. He has been chairman from the time the committee was established, has he not?—I believe he has, but I am not certain on that point. It is purely a question for the committee.

5693. Have you anything further to add?—No, thank you.

Mr. JOHN T. WILLIAMS, called and examined.

5694. (*Sir Isidore Spielmann.*) You are a member of the firm of Messrs. Hitchcock, Williams and Co., I believe?—Yes, I am the manager.

5695. Has your firm exhibited at any great international exhibitions abroad, and, if so, what are the exhibitions and where were they held?—We have exhibited at Paris in 1878, at Philadelphia in 1876, at Vienna in 1873, at Amsterdam in 1869, and at London in 1862.

5696. What is the nature of the goods exhibited by you?—They were made-up goods principally, such as costumes, mantles, shawls, and things of that kind in connection with our business.

5697. Have you had any increase of business with foreign countries which you can directly attribute to the exhibition of your goods and their inspection by visitors at such exhibitions?—Yes; I think there would certainly be an increase of business in the countries where they were admitted free. Of course, where there is a large duty, as there is on our class of goods, that makes a very great deal of difference. Where there is a 50 per cent. duty, you can understand that it is very difficult to compete against the people in their own country.

5698. In your heads of evidence you say that you have not had an increase of business with foreign countries, but that exhibitions have increased your business with the colonies; that is so, I take it?—Yes.

5699. How do you account for that?—I think it is due to the very fact of the advertisement which we get by showing at the exhibition. At these large exhibitions people come from different parts of the world; they see our goods exhibited, and they at once take down where they come from if they like the goods. In consequence of that, I think that a large increase of business did come from the exhibitions we are speaking of now.

5700. Have you ever experienced any actual disadvantage from exhibiting at such exhibitions, either from having your goods copied by foreign competitors or in any other manner?—That would not make so much difference to us, because in our class of goods we are continually changing. It is not like a steam engine, or anything of that kind, which goes for a long time; our goods change every season. Therefore if they copy them at one time, they would be out of fashion three months after. So that it really does not make so very much difference to us in our particular class of business.

5701. Do you attach any considerable value as a means of developing your business to the awards which you have obtained at exhibitions?—Yes, I think so. The medals that we obtain at each of these exhibitions have been put upon our different books and invoices, and of course we have various other ways of showing the medals. I think they certainly advertised us, and did a great deal of good at the time. We have six medals, for instance, on the top of our invoices and books. These medals are all stamped on, and I think they did us certainly a great deal of good.

5702. In your heads of evidence you say that the medals were more important to you in the earlier days, and that they are less so now?—I think that is so, because if you fill up your billheads with about six medals you have got as many as you want. I do not say that that applies to other people, but it applies to people who have six or seven medals.

5703. Have you been induced to buy from British or foreign manufacturers to any considerable extent as the result of having inspected their goods at any exhibition?—I do not think we have to any considerable extent, but certainly it has been an advantage in that way. We have seen the various exhibits and their addresses, and so on, and if we thought any one suitable for our line of business, we have taken notice of that—to some small extent at any rate we certainly have.

5704. Can you specify any definite points on which you have derived instruction or knowledge from visiting exhibitions, say, for example, methods of manufacture, economy in manufacture, or opportunity to purchase improved machinery and the like?—We certainly have done so in connection with these various new machines that have come out, both in France and in America, which are adapted to our business. We have certainly adopted them. There have been large improvements in that way in the last 30 years.

5705. If you have refrained from exhibiting your goods at great international exhibitions in the past, or have discontinued exhibiting, what briefly were the reasons by which you were actuated?—We have not exhibited lately because the commercial value of the awards has diminished, owing to the multiplication of small exhibitions.

5706. And, as you said just now, you have as many awards as you wish to have for advertising purposes?—I would not go quite so far as that. I think perhaps if you were having another exhibition we should go in for it.

5707. You would?—Yes, certainly. Therefore I do not think it would be quite correct to say that; at the same time, they are not so valuable now as they were at one time. We should not exhibit at a small exhibition now. For instance, an exhibition at the Crystal Palace, or anything of that kind, would not suit our class of business; we are principally wholesale and in a fairly large way, and therefore it would not suit us to exhibit there.

5708. Would you exhibit at international exhibitions?—Yes, we should.

5709. You are always inclined to exhibit at international exhibitions?—Most certainly.

5710. Do you attach greater importance to the orders you get at exhibitions than to the awards?—We do not suppose that we should get many orders there. It might influence the tradesmen of the country in which the exhibition was held, and of other foreign countries to come to our warehouse. That is the principal thing we should gain by exhibiting.

5711. If disinclined to exhibit from a business point of view, would you, with the object in ensuring that British manufactures were creditably represented among the exhibits of other countries, be willing to exhibit at great international exhibitions in future, provided that some permanent organisation were available which would minimise the trouble and cost to individual exhibitors?—That opens up a series of great questions as regards fair play. We should like to see the reciprocity which should exist between the various countries but which does not exist, and so we are not given the opportunity of getting back what they take from us. There is just that about it.

5712. Apart from that, are you willing to participate and pay your own expenses of exhibiting?—I cannot say, but we should consider it certainly.

5713. At these previous exhibitions, where you exhibited, did you pay your own expenses or were you assisted by the Commissions of the time?—We paid our own expenses, and should be quite willing to do that again. I do not think that any house of any importance would require assistance. It seems to me that these large houses which exhibit at the large exhibitions are wealthy houses, and do not require any assistance whatever.

4714-5. Why did you not exhibit in Paris in 1900?—The real reason we did not exibit was on account of the insults levelled at Queen Victoria by the French Press at the time.

5716. You require no financial assistance when you decide to exhibit?—Certainly not.

5717. Are you of opinion that this country should hold aloof from international exhibitions generally, or do you consider it indispensable that an effective display of British machinery, manufactures and works of art should be made at such exhibitions?—We are only speaking of our own trade. The foreign visitors take our ideas and use them against us, shutting us out of their own markets. This does not apply to our trade only, but we think it necessary that a good display of British goods and works of art should be made at all *bonâ fide* international exhibitions; by this we mean exhibitions that are thoroughly of an international character, and not those got up for the benefit of the hotels and towns, and called international, but which are only traps to catch unwary visitors.

5718. Is not the first part of that reply rather a contradiction of what you have already said? In reply to the question, have you ever experienced any actual disadvantage from exhibiting at such exhibitions either from having your goods copied by foreign competitors or in any other manner, you say in your heads of evidence, "No," but now you say, in reply to my last

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question, which is a somewhat similar one, that the foreign visitors take your ideas and use them against you?—They do that. "No" would not be quite a full reply to your earlier question. I think the answer that I have just given expresses our view more than "No" does.

5719. Have you had your ideas copied?—Certainly.

5720. On the other hand, have you ever copied things; for instance, American machinery?—We have not copied American machines, but we have used them as we should use any machinery. No doubt there is reciprocity in that respect, so we do get the advantage as well as the disadvantage.

5721. So you regard it as a matter of give and take at these international exhibitions?—Certainly we do. The only difficulty that we are in which tries us a great deal is the fact that we cannot send any goods there, and they can send theirs to us. That is the real point of the difficulty that we have, and it is annoying. For instance, the French people send into our country their goods free, but we cannot send our goods into their country free. We do to a very limited extent now send goods to France, but they charge us a duty of 50 per cent. That does not seem fair. We exhibit in those exhibitions, for instance, and we have our things there, but we cannot sell them. Our only advantage is because the colonial visitors, and the visitors from free countries come to these exhibitions to see the exhibits. But in the country itself where the exhibition is held, if it is protected, we do no business. If the exhibition was held in a free country, and some of our colonies, for instance, are free, then we have an opportunity of doing business in that country.

5722. Have you exhibited at the exhibitions in the colonies?—We have not done so, because we prefer the international exhibition, which answers all our purposes. We have no objection to exhibiting in the colonies, only it would be an expense that we should have to look at and consider. We do a large colonial business.

5723. At the exhibitions in which you have participated, were you satisfied with the management of the British sections?—No, not quite. I was going to remark about that. The general management was excellent, but the unhappy grouping of the exhibits was prejudicial to several exhibits, for instance, where delicate shades of colour were lost beside crude reds and yellows. The position was rather bad on that account, and we did not care about it. In another exhibition we shall be very careful where our case is placed, because whatever exhibition we exhibit in, it would cost us £1,000.

5724. (*Mr. Algernon Law.*) In the case of the Philadelphia Exhibition, was there official participation on the part of this country, or was it merely the local organisation that you complain of, or was it some unofficial English organisation which looked after the interests of the English exhibitors?—That I am not quite sure of, only the fact remains that we were put beside these people. That is a matter of grouping. The most important and the best exhibition that we have seen for that kind of grouping was the last Paris Exhibition, where it was beautifully done.

5725. The exhibition in 1900 you mean?—Yes, I was there.

5726. Did you take part in the exhibition of 1889?—No.

5727. And you did not take part in the exhibition of 1900?—No, we did not; but we went there, as we should go to all exhibitions for information, knowledge, and enlightenment. We found there that the grouping of this particular business of ours was beautifully done, better than in any other exhibition we have been to. We always go to any exhibition. It does not matter whatever exhibition it is, we are there in some form or other, whether we are participating or not. At the Paris Exhibition of 1900 it was beautifully done, the exhibits altogether being properly grouped with good taste and also with plenty of room, which is necessary for our business.

5728. (*Sir Isidore Spielmann.*) Are you referring to the British section there?—I am referring to the British section and to the French section, too, in our class of goods. I am now only speaking from our point of view.

5729. (*Mr. Waring.*) Are you speaking more particularly of the French section as regards the *ensemble* of colour being good?—I should speak more particularly of that in the French section.

5730. Would you say that it was better than usual in the English but best in the French?—Yes. I think that the grouping of the French section in our line of business at the last exhibition was nearly perfection. If we exhibit again at another exhibition, that would be the kind of improvement which we should like to see adopted.

5731. (*Mr. Algernon Law.*) Do you approve of collective exhibits—that is, would you join with others in the same line of business to form a collective exhibit?—No; we should not do that.

5732. Do you admit the principle in connection with other businesses? Do you think that where firms are reluctant to come forward the State should ask them to join in a collective exhibit to which the State should either pay a part or the whole of the expense?—We do not think so. We think anyone exhibiting would not do so unless they reaped some personal advantage out of it.

5733. Do you not attach importance, then, to the credit of the nation generally being kept up by a good exhibit all round?—I think they should be sufficiently loyal and patriotic to do it on their own account. That is my personal feeling in the matter.

5734. How often do you think an exhibition should take place? How often would you yourself be disposed to take part in exhibitions?—I think about once in ten years, or something like that, is the usual time. I am not quite posted up in that, but I should think once in about ten years.

5735. Have you any ideas as to the form the British organisation should take? Are you satisfied with the Royal Commission arrangement, or would you like a committee formed by manufacturers and traders themselves?—I think myself that there should be some manufacturers and tradesmen on the committee—most decidedly there should be some practical men on it. That is how I think the grouping and the general arrangement would be greatly improved.

5736. You say in your heads of evidence, "We should not exhibit unless the countries exhibiting (our competitors) would give us the same opportunities of doing business in their countries that we give them here"; and you also say that exhibitions, if they have taken place in foreign countries, have increased your business with the Colonies?—That is so. Since we exhibited—and the principal exhibits we made were some years ago, when the duties were not so high as they are now—they have extended the duties, I suppose, double.

5737. But do you think that exhibiting in foreign countries brings you trade?—Yes, decidedly.

5738. You did not exhibit at St. Louis, or at Milan, I think?—No. We did not think that those exhibitions were sufficiently important, really.

5739. Not the Milan one?—No.

5740. Nor St. Louis?—St. Louis was fairly good, but we did not think it of such importance as to decide us to exhibit there. Of course, if there was an international exhibition in London, Paris, Vienna, or some other large place, we certainly should exhibit. When we display, we should like three displays—that is, we should like our things changed. This is our difficulty in displaying our goods at these exhibitions. What you bring out for spring does not do for summer, and does not do for autumn; so we want three different opportunities of displaying our goods. If you went to an exhibition, for instance, in the middle of summer and looked at a spring exhibit in our line of business, that would not mean any great amount of business for us.

5741. (*Sir Isidore Spielmann.*) In your line of business fashion plays a very large part, does it not?—Yes, and we want to change it as the season turns, like the flowers. That is our difficulty, and that is why we want a few practical men at these exhibitions, so that we should be able to go a little into detail as regards the various things that we want to do, in order to improve on what has been done before.

5742. (*Mr. Waring.*) I think you are a thorough believer in the value of exhibitions?—Yes, I am.

5743. You were very good in saying just now that the question of cost did not altogether influence you; but then, on the other hand, I take it that when you are exhibiting in a country like St. Louis, the point that

would present itself to you would be, Is it worth while exhibiting in that country—that point being largely financial and necessarily financial?—I am not quite sure about St. Louis. If it was in New York it might be a different matter.

5744. I am taking now a remote point. I want really to get to this: The underlying motive with regard to exhibiting is, Will it pay to exhibit in any particular district? That would be one of the important questions which a manufacturer or a proposed exhibitor would ask himself, would it not?—Yes. But it would be very difficult to answer, because you cannot exactly tell whether it will pay or not; the paying part comes in afterwards.

5745. Whether you thought it would pay or not would influence you? It is only an impression, and it can only be an impression, because no one can say with definite certainty whether it is going to pay; but one of the points that would influence you in deciding whether to exhibit would be whether you thought a remote district like St. Louis, or a nearer point like New York, would better pay you in result?—Quite so; that would be one of the things we should think of very seriously.

5746. Therefore if it is suggested that an exhibition has got two aspects, a national and an individual aspect, and if you were thinking of exhibiting from a national standpoint, the question of whether you were to be assisted would be a consideration in coming to a determination whether you would exhibit or not, I take it?—I do not think it would in our case. We should argue somewhat in this way—if it is not sufficient to repay us the whole of the expense, we should not exhibit at all there; if it did not answer our purposes to exhibit on our own payment, we should not consider that worth our exhibiting in. I think something on that line would be my reply to that question.

5747. That is your own personal view?—Yes.

5748. Do you think that would be a view that would influence a great many other people?—I think it would influence all large houses. We should not like to be assisted. For instance, if St. Louis were to say to us, "We will pay half the cost if you exhibit here," we should say, "No, thank you; if we want to exhibit there, and it is worth exhibiting, we will pay our own cost of exhibiting."

5749. However, you are largely influenced by whether you think it is really worth your while to do it or not, irrespective of the cost?—Certainly.

5750. Quite irrespective of the cost?—Yes, for the standing of the house and for the whole thing, apart from being paid for it. No good house, I think, should be asked to be paid for it. They have plenty of money, if it is a large house, and therefore I think it is not at all necessary for them to be helped in any way.

5751. Take this point: Suppose other countries like Germany and France help their exhibitors by paying certain parts of the expense, such as transport, would you consider it rather handicapped an English exhibitor that he should not receive the same advantages from his country that the other exhibitors had from their countries?—It might do so in the case of some of the smaller exhibitors, but, at the same time, as far as we are concerned, it would not in any way influence us. There may be some who would say, "If they pay half the expense, I should like to exhibit"; but that is not our way.

5752. You have suggested in one of your answers that you do not get certain financial results from countries where you are practically barred out, except in an indirect way, such as Canada, say, seeing your exhibits in America and your getting business from that. That all seems to me to show that the determining point with regard to these exhibits is this question of whether it pays or not. I think some people are undoubtedly influenced by patriotic motives, but, however patriotic one may be, there is always the financial position to face with regard to the conduct of business?—Yes, of course, there is.

5753. Would not the generality be affected by that view rather than by the patriotic view?—I do not think so, and they should not be. There is the honour of getting the medal as well, apart from the payment. It is not only a question of whether the thing pays, though that certainly is one important item; but if you have a medal that shows you have beaten your competitors, and I think there is honour in doing that in any part of your line of business. I think a medal has something to do with it.

5754. Did you see the Paris Exhibition of 1900?—I did.

5755. What was your impression of the effects of the *ensemble* of the British Court, as compared with the German and the American Courts, say? How do you think we came out in point of comparison with those Courts?—Do you mean in our line of things?

5756. No, I am asking you now as to the whole effect of the British Court?—As regards machinery and all that kind of thing, I think we came out splendidly; but in our line of business I think the French section, in the grouping and in the general *ensemble*, was better than ours.

5757. What would be your personal impression in going through the various courts, including the English Court; would the English Court strike you as being the best and first court in the whole exhibition?—I preferred it to any other, speaking for myself.

5758. It struck you as being the best, did it?—Yes, taking everything—not in our particular line of things simply, but generally speaking.

5759. You are taking machinery now?—Yes.

5760. In your particular line, and other lines of a comparative nature with yours, did it look the best?—Yes.

5761. You would say that, on the whole, it looked the best?—Yes, I think, on the whole, it was quite as good as any.

5762. Do you think the desire to exhibit is dwindling or increasing?—What has really reduced the advantage of exhibiting is the small exhibitions, which have somewhat taken the place of these large exhibitions. The small exhibitions we should not exhibit at.

5763. Do you think the tendency and desire to exhibit is decreasing or getting keener?—If it was an international exhibition, it is quite as keen.

5764. I mean for an international exhibition?—I think it is quite as keen, if it is really an international exhibition—not for any set apart for one particular country or anything of that kind, but for a really international exhibition, I think the feeling is quite as keen now.

5765. Have you heard of any complaint from anyone that they would not care to exhibit again at an international exhibition; or have you heard it said that they are very satisfied with the result, and that they would be glad to exhibit again?—There is just one difficulty that I have put down in my notes in connection with that. When we exhibited in the Paris Exhibition, if we sold any one thing—a £20 gown, for instance—we could not sell that without paying duty on the whole exhibit, say £500. There are difficulties in connection with exhibits in that way which we want to get over, and we want practical men on the committee to be able to look into these things. We could not sell anything in Paris in consequence, because we could never sell any part of the exhibit until the end, and then we had to sell at 50 per cent. off, which was a loss of £500, because of not being able to sell singly in those protected countries without paying duty on the whole exhibit. That is a point which, I think, should be looked into.

5766. The great impression left on your mind is that we want to improve the control and management of these exhibitions, as against the cost?—I think so, certainly; and I think the last Paris Exhibition was a great improvement on anything that had been done before.

5767. (*Mr. Malcolm Ramsay.*) You said in reply to Mr. Waring that in considering whether you would go into an exhibition or not, you only considered whether it would pay you as a matter of business—that is, whether you would do business there. If you thought it would pay, you were prepared to go and to pay your own expenses, but if you thought it would not, you would leave it alone. Supposing now that the Government were to decide to take part in a large international exhibition and asked you to participate, and supposing that exhibition was one which you did not think it would pay you to go to, as a matter of fact, but the Government said "You are a large and important firm, and we are very anxious to have your line of business well represented, and although there is no business in it for you, we should be very glad if you can see your way to go and exhibit for the credit of the country," what answer would you give to such an invitation?—How much would they offer?

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5768. If you were asked that, would you be prepared to do it on your account or not?—That is one of the kind of questions we should ask—what do you mean to do in helping?

5769. Then would you expect to be helped or ask to be helped in that case?—No, we would not ask for it. If we were asked by the exhibition Commission to send there, that would be rather another thing. Certainly on our own account we should not ask for help; but if we were asked particularly to do it in our particular line of business, that would be rather another question, I think.

5770. I am putting it to you as another question; I was wanting to know how you would consider such an invitation?—We should do it, I think, very likely, for the honour of the country, if it was particularly wished, but on our own account we should not ask for it.

5771. Supposing that you did not want to go on your account, but the authorities were very anxious that you should, in order that the British exhibit in your particular line should be comprehensive and worthy of the country?—I think under those circumstances it would be a question that would be looked into very carefully.

5772. (*Mr. Harris.*) You said to Sir Isidore Spielmann just now that you would certainly go to Paris, for instance; but you did not go to Paris in 1900. How do you reconcile those two things—the fact and the statement?—I suppose that the general thought with us would be that we had had enough of exhibitions and there was no particular reason why we should, as we had six medals from six different exhibitions. But that would not be any reason why we should not exhibit again, I think.

5773. You have not exhibited for 20 years, or something like that?—That is so; we have not required to do so.

5774. Then you are rather changing your view? If there came a new chance you might say, "Perhaps we had better start again"?—We should not quite do that in protected countries, I think, but we should have to think of it very fully. We should do it in a free country.

5775. I have been listening to your evidence with great care; is not the real point of your evidence this, that you are so well established a firm that you really do not care very much whether you go into an exhibition or not?—Yes, there is a great deal of truth in that. If you are thinking about an exhibition in London we certainly should go in for it.

5776. Are you a member of the London Chamber of Commerce?—No, I am not.

5777. Would you like to see exhibitions under the ægis of the London Chamber?—On mature consideration, I should say no.

5778. Have you any views on that subject?—No, I have not.

5779. (*Sir Isidore Spielmann.*) Do you recollect what your expenses have been at the various exhibitions in which you have participated?—We reckon it costs £1,000.

5780. You do not consider that it would be of much consequence to you if you were assisted to the extent of half that sum?—No; unless we were asked to exhibit, when in some cases we should not otherwise do so. It would not make any difference, as regards assistance, as far as London is concerned, or any other large international exhibition, because we are prepared to pay our own costs. But of course, if you make a gift of £500, anyone would receive it; I mean to say as a firm doing business in pretty large ways, I do not think it is necessary to be asked.

5781. (*Mr Waring.*) You do not like the idea of taking money for these things?—Not at all.

5782. But if it were adopted as a general principle, you would not give it back again?—It would be very stupid, I think, to do that; you would not throw away £500.

Mr. Mark W. Zambra, called and examined.

Mr. M. W. Zambra.

5783. (*Sir Isidore Spielmann.*) Are you a member of the firm of Negretti and Zambra?—I am the manager actually, not a member of the firm.

5784. Has your firm ever exhibited at any great international exhibition; and if so, what were the exhibitions, and where were they held?—At the Paris Exhibition of 1855 we did not exhibit as a firm, but we sent certain instruments under the auspices of the Kew Committee, which instruments gained an Honourable Mention. We exhibited in Paris in 1878 as a firm, in Santiago in 1875, in Philadelphia in 1876, and in Paris again in 1900; and we are at present exhibiting at Christchurch under the auspices of the Meteorological Office. These exhibitions were all *abroad*. We also exhibited in London in 1851, and obtained the only prize medal, and in London in 1862, where we obtained two prize medals.

5785. What have you exhibited at these exhibitions?—Scientific instruments in general—meteorological, optical, and surveying.

5786. Have you had any increase of business with foreign countries which you can directly attribute to the exhibition of your goods at these exhibitions?—No. We are quite unable to trace any direct business having occurred. At the Paris Exhibition of 1900 the process we adopted was to have a number of postcards addressed to our firm's address, with writing in French on the back to the effect that if that addressed postcard was sent to us describing the nature of the goods in which the visitor was interested, we would send to his address the price list. We had some few applications on those postcards, not very many, and certainly not as many as one would expect. As to business therefrom, we were unable to trace any.

5787. What is your object in participating in international exhibitions if orders do not result?—Lest our absence should be taken as a sign that we were no longer making instruments, or that the firm was no longer in existence; in other words, to show that we are still where we were in the old days of the previous exhibitions at which we exhibited.

5788. At these various exhibitions where you have exhibited you have usually taken an award of some sort, I believe?—I think I may say invariably.

5789. What description of award?—Gold medals for the most part. For instance, in the Paris Exhibition of 1878 the firm were awarded the only gold medal in the British meteorological section; at Philadelphia we received, I believe, three gold medals; at Santiago we received one medal (it was not specified whether it was gold or not); and at Paris in 1900 we received two gold medals. So that you may say that, as a general rule, we have invariably been awarded a medal. In the Paris Exhibition of 1900 we were awarded the two gold medals in different sections of apparatus. We have heard nothing, so far, about Christchurch.

5790. That exhibition has just closed, has it not?—I was not quite sure. We have heard very little of it; the Director of the Meteorological Office has heard very little indeed, and he is unable to give us any information.

5791. Have you ever experienced any disadvantage from exhibiting at such exhibitions, either from having your goods copied by foreign competitors or in any other manner?—None that we can trace at all.

5792. Do you attach any considerable value as a means of developing your business to the awards which you have obtained at these exhibitions?—No; except for the reason that was stated just now—that they show that we are still in the field as makers of scientific instruments, and that we are still in a position to exhibit those instruments as being of the highest quality and in keeping with the name of our firm, as has been done before.

5793. Have you ever been induced to buy from British or foreign manufacturers to any considerable extent as a result of having inspected their exhibits at such exhibitions?—We have not experienced any such desire at all.

5794. Can you specify any definite points on which you have derived instruction or knowledge from visiting exhibitions, such as methods of manufacture, economy in manufacture, or opportunity of purchasing improved

machinery, and the like?—No; we have not, I think, profited at all in that sense.

5795. In your line of business the Germans usually show to great advantage, do they not?—My experience personally extends only to the Paris Exhibition of 1900. You must understand, in the first place, that the gentlemen who had the arranging of the previous exhibitions in 1855, 1875, and 1876 are now deceased; the late Mr. Zambra and the late Mr. Negretti, who were then heads of the firm and had this matter in their hands, are now deceased. Therefore we must come to a later date in which I had the arrangement—namely, the Paris Exhibition of 1900. I can only speak as far as that is concerned. Certainly at that exhibition, if my memory serves me rightly, the Germans had a very fine exhibit indeed, and they were very well served. If I recollect rightly, their instruments were divided up into certain sections, and certain firms were blended in a certain section—even in the same case, I believe; the consequence was that the net result of their exhibit was very fine collectively.

5796. It was what we describe as a collective exhibit?—Precisely.

5797. Are you in favour of collective exhibits?—I venture to suggest that that matter should be considered in its due course, depending upon the exhibition in question. I do not know if I am right in saying, on behalf of the firm, that we should not altogether favour it.

5798. Have you ever joined in a collective exhibit?—Never.

5799. Why would you not care to do so?—One rather has a tendency to keep one's own individuality, so to speak. One would not object if the appearance of all the cases was the same, but one would rather like to have one's own instruments entirely under one's own name. I think that is the view which our firm would take. It appears to me, from the discussions I have had with the firm as to past exhibits, that we should rather feel inclined to have all our various instruments under our own name.

5800. You did not exhibit at the St. Louis Exhibition, I think?—We did not.

5801. Were you invited to do so?—Yes, we were.

5802. I think an effort was made to form a collective exhibit there; was that so?—I have some recollection of it. It was under Mr. Agar Baugh.

5803. Do you happen to know whether it was on that account that you stood out?—Certainly it was not on that account; it was on account of the difficulty of transhipping goods to St. Louis.

5804. You have rather anticipated our next question?—I have, but it is very important to us.

5805. In your heads of evidence you say, "We have refrained at times, owing to the expense and inconvenience we suffer through the absence of a valuable member of our staff. We have, however, felt that our absence might be prejudicial to our interests, being taken by the public as indicating that we no longer maintained the prominent position which we had in the trade." Had cost anything to do with your not exhibiting at St. Louis?—Yes; indirectly it had, undoubtedly.

5806. In joining in a collective display you would probably be offered some portion of your expenses; would that not be an inducement to participate?—It would.

5807. Is exhibiting in your line of business a very expensive matter?—Very; because our instruments are of such a delicate nature, and are not understood by every person, so that it is necessary for us to send an experienced man, or to obtain the services of an experienced man on the spot, in order to receive those instruments, unpack and erect them in an intelligent manner, put them in good working order, so that when the judges come round the instruments would be in fair adjustment and not appear ridiculous.

5808. Do you recollect what your expenses were at the last large exhibition at which you exhibited?—We never attempted to arrive at them.

5809. You exhibited at Christchurch, New Zealand, because the British Government exhibited, and you were probably relieved of expenses there; but at the Exhibition in Paris in 1900 do you recollect what your expenses were?—We never attempted to arrive at the expense in any shape or form—neither my time, nor the assistant's time, nor the freight nor the breakages, nor so-and-so forth; none of those were taken into consideration at all—I mean to say they were not totalled up.

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5810. If you were given a portion of your expenses towards a collective exhibit, your objection to a collective exhibit would no longer exist, would it?—I could not say that entirely, because we should want to be assured that there were some means taken on the spot, wherever it was, to secure that our instruments were displayed in their correct adjustment. I would venture, if I am not taking up too much of your time, to explain what our senior partner told me this morning. When our instruments were sent out to Philadelphia, we had a friend over there who undertook to unpack and erect them, and it is said in our firm that one of the instruments was hung upside-down, which was palpably ridiculous, and the judges would think that the firm did not know their business.

5811. From your experience of the Paris Exhibition were you satisfied with the organisation, which was a Royal Commission in that instance?—I did not come in contact very much with the Commissioner, and I remember that our first impression on arriving at the spot was that we were very badly situated as regards light. If I recollect rightly, there was a certain part of the hall in which a broad gallery ran, almost as broad as this room, and we were directly underneath that, with the result that a vast amount of light was taken away. In the second place, I remember that our particular case was down a by-way, off the main passage. We were not pleased with that at all—naturally enough. Thirdly, I recollect that we had on one side of us a firm of scientific instrument makers—I believe the Cambridge Scientific; and on the other side we had Mr. Clarkson, the wig-maker. In a section devoted to scientific instruments that hardly seemed the thing.

5812. Then you were dissatisfied with the space?—I may say we were very dissatisfied.

5813. Did you pay for it, or was it given to you?—I believe it was given.

5814. Did you complain to the Royal Commission that you were badly situated?—Certainly not. We made the best of a bad job. It was then too late; the case was over there and more or less in position, and we had to put the instruments into the case and do the best we could to improve the light.

5815. But you would not be dissuaded on that account from participating in future exhibitions?—No, not by any means, provided, of course, always, that the place is accessible for one of our staff to go over. Whether it is near like Paris or far like Milan or St. Louis, there should be some convenience for the erection of the instruments.

5816. Did you refuse to participate at Milan?—After great consideration, yes, on those very grounds which I have just mentioned. The matter was discussed, and we had very strong representations made to us for exhibiting there, ours being Italian names and so and so forth. We thought very seriously of it, and a certain gentleman in the City was very desirous that we should be there. We discussed the matter at very great length, but the same objection arose, that we should have to send one of our very best assistants to Milan to receive the instruments, unpack them, erect them in the case, and then to come home and afterwards to go out again in order to explain any points to the judges which might be necessary. I think I am right in saying that it is an important thing at an exhibition when the judges are passing an exhibit that the instruments should be explained to them, and the points you wish to make, the improvements and the inventions, should be pointed out to them. That would mean sending the same experienced assistant or another one who knew the language well presumably, to go over there and await the visit of the judges; and if our instruments were in two or three sections that might mean that the assistant might have to wait two or three weeks until the judges had visited all the sections.

5817. If you had been offered some inducement, such as the refunding of a portion of your expenses, would you then have gone to Milan?—No, certainly not, without the use of an experienced assistant at that end, or some convenience by which our own assistant might have lost very little time in attending to the exhibit. The cost, I venture to think, would be quite a minor detail in a case like Milan.

5818. You know of the existence of exhibitors' agents,

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do you not?—I believe we have been approached by firms of carriers and such like people.

5819. I mean the agents who make it their business to represent a certain number of firms at exhibitions and to look after their interests there?—I am not aware that any such agent approached us over the Milan Exhibition. There was certainly some such talk about the St. Louis Exhibition, but at Milan I think I am right in saying no such approach was made to us.

5820. Do you regard exhibitors' agents with disfavour?—As regards our own instruments, I venture to think that if they are not well up in meteorology or surveying or physics of some sort, they are unable to appreciate the points of, say, a standard barometer.

5821. Are you referring now to the international jury?—No, to the agent of whom I understood you to be speaking. The agent is unable to understand the action of a standard barometer, let us say.

5822. For explanation to the jury?—No, for erecting even.

5823. Even for erecting?—Even for erecting and packing.

5824. Are you of opinion that this country should hold aloof from international exhibitions generally, or do you consider it indispensable that an effective display of British machinery, manufactures, and works of art should be made at such exhibitions?—I think we consider this country should make a good show at important international exhibitions, and by that we mean such exhibitions as St. Louis, Milan, and Paris. I believe Santiago was a big exhibition, but it was some years ago. On the other hand, I believe there are many small exhibitions where they just tack on a British section, do they not? I believe, if I recollect rightly, there was a small exhibition held at Marseilles last year or the year before, at which we were requested to exhibit, but it appeared to us that it was quite a minor exhibition, and that if there was a British section it would not be official, and no very great good would come of it.

5825. Have you any observations to make upon the organisation of British exhibits at the international exhibitions with which you have been acquainted in the past, or with regard to any improvement which could be made in the organisation of British exhibits in the future?—In reply to that I have simply to make the same observations as I did about the position of our case at the Paris Exhibition of 1900. I should like, if you will permit me, to reiterate the remarks I made about Milan—that it was not a question of cost in that instance which debarred us, but it was the difficulty of arranging for an assistant who would have the matter in hand as regards the unpacking and erecting, and being in sufficient command of the Italian language to see the things were satisfactorily erected and to explain to the judges the particular points of our instruments which we wished to impress upon them, and eventually to go over there again and repack the instruments so that they might return to us in good condition without breakage.

5826. Did you visit Milan as a visitor?—No, I regret I did not.

5827. Liège?—No.

5828. Brussels in 1897?—No.

5829. Nor any of the other exhibitions that you have enumerated in which you participated?—No.

5830. Have you any suggestions to offer as to the future organisation of British sections at exhibitions?—I am afraid that my experience in the business and in exhibitions is too small to permit of my offering any suggestion, much as I should like to do so. I simply have not had sufficient experience. I only have the rather disastrous experience at the Paris Exhibition, when I do not think that we did ourselves justice, in spite of two of us, an assistant and myself, taking some of the more delicate instruments over ourselves. I spent, I think it was, ten days over in Paris at the beginning of the exhibition, and I spent seven days later on towards the end of the exhibition. Our assistant spent a fortnight there at the beginning; he spent a fortnight in the middle of the exhibition; and I think he spent another fortnight towards the end of the exhibition. That was to endeavour to secure that our instruments were put into the correct adjustment, and that we should not appear ridiculous in the eyes of either the judges or the other instrument makers on the Continent who were at hand.

5831. Generally speaking, is your firm well disposed towards international exhibitions?—I should say so distinctly, because we have a firm belief that as we got medals in the first instance in the early days of the firm, so there is no reason why we should not get medals in the later days. We should do it with a view to showing that our instruments are still being made of high quality, and I trust with the same improvements as in previous years.

5832. We hear of a large exhibition to be opened in London next year, and of one to be opened in Brussels in 1910; do you think your firm would participate in those exhibitions?—I venture to think most emphatically they would. They absolutely could not do anything else than exhibit in London; I mean to say that all the objections which I have raised are done away with in that case.

5833. Even if you have to pay for your own space, and all your other expenses?—That would depend entirely upon the other expenses, naturally. I believe we have done that in nearly every exhibition except the Christchurch Exhibition, in which case, the freight was paid out to Christchurch. Even so, we had the expense of getting up the goods specially, and making them, as we might think, fit, and exhibiting them first of all at the Meteorological Office; then packing them in the very finest way, taking inventories, writing instructions, and so and so forth. The expense question would not be considered, I think, in either of those two, Brussels or London.

5834. (*Mr. Harris.*) You mention the exhibition of Buitenzog; what exhibition was that?—That was rather before my time, but we had a very good friend—I believe he was a distant relation of one of the members of the firm—who had a London house, and a house in Java. When this exhibition was mooted, I presume the members of the firm turned at once to this gentleman, and an arrangement was made by which his house over in Java received the instruments.

5835. You have no special lesson to draw from it, then? You have only mentioned it as part of your firm's history?—Quite so.

5836. Do I rightly gather from part of your evidence that you look upon yourselves as having rather got on to an inclined plane as regards exhibitions, and having once got on it, you must go on exhibiting? Would you, in fact, rather be without exhibitions at all, as a matter of business?—I hardly know how to answer that. I presume that if no one else in the scientific instrument trade exhibited, we should not feel the same necessity to do so.

5837. As long as somebody else exhibited, then you feel you must go too, for the sake of your reputation?—Certainly, with the other scientific instrument makers of London.

5838. Have you been able to trace any improvements in the actual volume of business you have done as the result of exhibitions so far?—Absolutely none at all.

5839. Would you go so far as to say that you do not think it has had any effect in bringing orders?—I do not think I should like to say that, because orders come in such a roundabout fashion that it is really impossible to trace them.

5840. You cannot trace such an effect?—No. There is an absence of the power of tracing, and we cannot systematise a thing like that.

5841. I should like rather to clear up your view as to Government aid. You apparently throw in any expenses you incur in exhibiting as part of the ordinary expenses of the firm?—Yes, certainly.

5842. You do not keep any separate accounts?—Certainly not.

5843. Therefore, may I infer that you look upon exhibiting rather as part of general expenses, and you do not attach much importance to the amount you spend on it?—I do not think I should like to go so far as to accept the latter proposition.

5844. Of course, I mean within a reasonable amount. You say, "We must go for the sake of the firm"?—Quite so.

5845. "And, therefore, we do not particularly examine our expenses"?—That is so. I can assure you that over the Paris Exhibition no summary of the expenses was made; in fact, it would be a difficult thing to arrive at, because, after all, the actual out-of-pocket expenses are only the freight of the goods over there, are they not? But you do not know what business you will be losing through the absence of an assistant, and you cannot put his absence down as so many weeks at such and such a price. Then you are

throwing more work upon the remaining staff. Personally, I could not say that I lost any orders while I was away; on the other hand, I might have done so. Then, of course, we take out a certain stock of instruments which might be sold if they were in London. Therefore, I think it is rather hard to arrive at the actual expenses.

5846. Would you attach importance to a regular organisation at this end, which would prepare the way for your exhibits?—Undoubtedly, speaking from the small experience I have had. In the smaller exhibitions at which we have exhibited, the Agricultural Hall, for instance, I find it very imperative to go up and see what sort of space is allocated, what light, what sort of stand will best suit, and what sort of instruments will make the best display; in other words, I find that it is very desirable that I should have some idea of how the exhibit will look afterwards.

5847. If at Paris they had practically done that for you, or put you in the way of doing that, would you have thought that the Government had done their duty, without doing anything in the way of grants or anything else?—Certainly. That is the whole point, that granted a certain plan of the space where one is exhibiting had been given, with some fair idea of the amount of light, and the position of the gangways, and the nature of the showcase, that is, which would be best; then we should have been in a better position.

5848. As a matter of fact, I understand that although you were so cramped in at the Paris Exhibition, you did get your awards all right?—Yes, we had two gold medals.

5849. Did the awards satisfy you, or do you think you would have done better in a better position?—I do not think I should like to say that altogether. I was thinking more particularly from the point of view of the passers-by—the people who visit the exhibition.

5850. You attach importance to the presence of the passers-by, do you not?—That is the original scheme of an exhibition, is it not—to let as many people as possible see the quality of your goods and the particular goods you produce, so that if they should ever want anything like it, they will remember the exhibit of the firm, and apply to you.

5851. Have you ever had any appreciable percentage of loss on your instruments at any exhibition; I mean have you had them damaged?—At Paris we did not, because we took such very great care, owing to this experienced assistant—pardon the reiteration of the phrase—going over. Then two of us deliberately went over with the more sensitive instruments under our care in the railway carriage, and when the cases arrived, very nicely packed, we did the unpacking; and in the same way we did the packing back again. I think I may say that there was nothing broken at Paris. I have no data for the previous exhibits; they were so long ago.

5852. (*Mr. Malcolm Ramsay.*) Do you regard exhibitions generally as a very suitable vehicle for advertising your particular trade?—Speaking on the spur of the moment, I should say it was a very desirable way, from the fact that I suppose a good many people visit an exhibition, and granted that your case is in due prominence, and in a good part, people have to pass it and will look at it.

5853. What I had in my mind was this: It seems to me that the demand for instruments such as you manufacture must come largely from scientific and expert people, who are a very highly specialised class, and that, consequently, you would be less likely to sell instruments and to get orders, as it were, over the counter, from an exhibition, than other trades which depend on qualities which are more superficial?—I see your point, in answer to which I should like to say that as our branches of instruments are so varied, we touch a good many of these special classes to which you refer. May I mention, for instance, surveying instruments? There are many engineers of all kinds in this world who want, perhaps, the merest surveying instruments, the merest clinometer rule or other small instrument, who, when they see that Negretti and Zambra make such an instrument, may apply for it. In the same way with nautical instruments, such as sextants; their users are numerous, are they not—cadets, lieutenants, captains, merchantmen, yachtsmen, and so and so forth.

5854. Then, in fact, the optical illustration in a show case at an exhibition, provided it is such as to show your goods to the best advantage, is worth a dozen catalogues, is that it?—That is more or less the idea, or rather it should be so.

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5855. Do you advertise largely?—"Largely" is capable of many interpretations.

5856. Do you advertise?—Yes. We advertise in a good number of daily papers, a fair number of weekly papers, in scientific papers, and in occasional publications.

5857. Do you employ travellers?—We do not employ travellers.

5858. Then practically your business depends on advertising and on the general reputation which is handed on from customer to customer?—Precisely; chiefly the latter.

5859. I gather that you go more to exhibitions for the sake of keeping up your prestige than for any direct benefit in the shape of sales?—Undoubtedly.

5860. I was rather surprised to hear you say that, because I thought your name was so wide-world that you could have afforded to stand out and rest upon your reputation?—It is very kind of you to say so, I am sure; but may I suggest that supposing a gentleman knows our name in connection with meteorological instruments, it does not follow that he knows we make a sextant or a theodolite, or, again, that we do telescopes or binoculars. Therefore we, being general scientific instrument makers, try to touch as many people as possible.

5861. In considering whether you will exhibit at any particular exhibition, would you be influenced by the consideration whether the British Government was going to organise the British section or not?—That would be a consideration in favour of our exhibiting, I venture to think on the spur of the moment.

5862. That is what I want to know?—Undoubtedly. May I quote again the case of Christchurch? That is a small exhibition, but we were approached by the authorities at Christchurch, and on consideration of the matter by the firm, it was decided that we could not possibly send a vast quantity of intricate meteorological instruments all the way to Christchurch without anyone to receive them and erect them, and to put them together in a good position. So we declined to exhibit. But when the director of the Meteorological Office approached us, and said, "Would you exhibit under our auspices?" and we saw that we were going to have a good exhibit, that we were going to have due justice done to our instruments, and that we should have a fair share of the instruments shown, we were only too pleased to accept at once.

5863. Could you give us any idea of how often you would be prepared to exhibit at an international exhibition?—That is not a question I have thought of at all, and you must understand that my answer to it must be on the spur of the moment; but I should say that once in three years would be ample. I say that without consideration at all; but it appears to me from the work entailed in getting up an exhibit that if we had it once in three years that ought to be sufficient, from the point of view of preparing the exhibit. I do not know how that coincides with your idea at all.

5864. It depends so much on the particular class of instrument or article that you have to exhibit, I take it?—You cannot help its making a certain drain upon one's time, in addition to the ordinary routine of business. One has a routine of business which occupies the majority of our staff, and we have our duties allocated fairly well. Granted that there is a vast amount of work coming in in preparing certain instruments, in erecting them, in a trial of them, and in a hundred and one little details, so that your instruments may be above reproach, all that is, of course, a drain upon your time. I recollect that this small exhibition at Christchurch last year took a vast deal of the time of two or three of us in getting the things ready within a reasonable period and in decent order. We had to plot the thing out more or less carefully. And that was a comparatively small exhibit of only meteorological instruments.

5865. For the purposes of an exhibition, do you send out exactly what you are prepared to supply? Do you make better instruments, or instruments with a special finish?—At times we have done that. When some of our instruments have appeared to be of a nature not to attract people's eyes we have occasionally finished them rather better. I know one instrument which, if it were finished in the ordinary way in bronze metal, would appear insignificant; we did

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once finish one of those bright so as to be a bit more attractive. The difference in the work was very little, and it was just done to liven up the case. Generally speaking, our exhibits are instruments finished in the ordinary way.

5866. (*Sir Isidore Spielmann.*) Coming back to the question of cost; apart from the expense of your agent, the cost is not very great, is it?—The cost of sending the instruments?

5867. The cost of forming the exhibit?—No; I venture to think that the cost is comparatively small.

5868. I mean that in regard to packing and the show case, a very great deal goes into a very small compass. I am thinking of the entire cost to you, apart from the expense of your agent; is that great?—No. As you say, the cost of packing is not very great, although in the case of a small exhibit like the Christ church one we made, I think, 17 cases of scientific instruments; but, of course, the expense of that is not very great.

5869. And that would be exceptional, would it not, because there, I suppose, you had to pack in zinc-lined cases?—Quite so.

5870. And therefore the bulk was very largely increased?—Yes, but so we should have to have done in St. Louis. I presume they would have been zinc-lined cases for St. Louis.

5871. We may take it that your firm is inclined to look upon international exhibitions with favour?—Yes, I think I am right in saying that is so.

5872. Is there anything you would like to add to your evidence?—I do not think so, thank you.

NINETEENTH DAY.

Thursday, 9th May 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Swire Smith.
Sir Isidore Spielmann.
Mr. S. J. Waring.
Mr. U. F. Wintour (*Secretary*).

Mr. John Moncrieff, called and examined.

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5873. (*Chairman.*) I think you are the managing director of Messrs. John Moncrieff, Limited?—Yes.

5874. Where is your place of business?—At Perth, in Scotland.

5875. You have been in business there for some time, I suppose?—I personally have been in the business for about twelve or fifteen years, but our business has been in existence for about thirty-five years, I think.

5876. You have exhibited at a good many exhibitions, have you not?—Yes.

5877. You give us this list, I see. London, 1876; Philadelphia, 1876; Paris, 1878; Sydney, 1879; Melbourne, 1880; Calcutta, 1883; London, 1884; Adelaide, 1887; Paris, 1889; Edinburgh, 1890; Chicago, 1893; and St. Louis, 1904?—Yes, we have exhibited at all those.

5878. Did you exhibit at Paris in 1900?—No, we did not.

5879. What goods do you exhibit?—They are gauge-glasses—that is to say, they are glass tubes for showing the water-level in boilers.

5880. You say their value is small, as they are approximately sold at 6d. per lb.?—Yes.

5881. Are they sold by weight?—They are sold by weight or by size. In fixing the value you really calculate your cost by weight, so I gave it in that way. To give you the equivalent of a discount off a list price would really mean nothing at all. We have on our list gauges ranging from $\frac{1}{4}$in. diameter up to $1\frac{1}{2}$in. diameter, starting from 6in. long up to 36in. long, increasing by $\frac{1}{8}$in. at a time. If I were to give you those prices less the discount it would be a very lengthy and complicated statement.

5882. Your discounts vary, I presume?—Yes.

5883. At Birmingham, I know, they have very much the same system of discounts; sometimes the discount is very high, is it not?—Yes, unfortunately, it is a very high discount—very much higher than it used to be.

5884. You do that instead of lowering your price, do you not?—Instead of altering the list prices. Where you have got hundreds of prices, it would be impossible to work except on a list and with a discount.

5885. I understand from your heads of evidence that you have had a very large and steadily increasing business with foreign countries, but that you do not know how much of that is due to exhibitions?—That is so. Since I got your request to appear here, I have been making inquiries from our cashier, and from old servants in our employment, and I find that they distinctly remember a large increase of business, from France alone, after the first Paris Exhibition that we exhibited at (1878), and also after the Paris Exhibition in 1889. The exhibitions in Chicago in 1893 and St. Louis in 1904, are the only exhibitions that I have been personally connected with, and my agent in New York, who works all our business for us out there, on both occasions after the exhibitions said that the business had distinctly benefited by the advertisement, so to speak, which we got at the exhibition.

5886. I suppose there are not many manufacturers of your particular goods, are there?—No. There are probably five or six altogether in this country; and probably the same number at different places abroad.

5887. I think you said just now that you send goods to America?—Yes, we send most of our goods to America.

5888. You have to pay a high duty there, do you not?—They pay a duty of 60 per cent. on them, I think.

5889. On your list prices?—On the net prices.

5890. That is, the price here?—Yes.

5891. You also send your goods to the continent of Europe?—Yes. We send to nearly every country; wherever there is steam power we send.

5892. The Germans do not compete strongly with you, then?—There are some Germans from Jena who compete very strongly with us, but still, we supply quite a lot of gauge-glasses, even into Germany, and even against their tariffs.

5893. But, somehow or other, you have held your own?—Yes, we have managed to do so.

5894. You cannot quite tell whether that is through

exhibitions, but you think they have helped you?—I certainly think they have helped us.

5895. Then, of course, you do not consider that your interests have been adversely affected by exhibitions?—No, not at all.

5896. Do you think much of the awards which you have had?—No; I do not think they are of very great importance. But suppose you had two manufacturers, one with no awards and the other with awards, each trying to get to an unknown person—that is, to do business with a new firm entirely, I should certainly say the client would be more likely first of all to look into the offer made by the man who had exhibited and had got awards granted to him.

5897. I suppose you generally have awards granted to you?—We have always had the highest awards granted in every exhibition we have sent to.

5898. Have you had competing goods exhibited at those exhibitions generally?—I cannot speak to that personally. I believe that in Paris in 1889 there was a Paris maker competing against us, and the highest award at that exhibition was a silver medal for our class of goods, which we got.

5899. I suppose that people would buy your goods upon their intrinsic value to themselves and upon what they knew of them, rather than upon the awards?—I do not think they would ever buy our goods because of the fact of our having had awards, but I do think that having had awards would induce them to test our goods if they had not already used them or had not tried them.

5900. And so awards would enable you to keep your position at the top of the tree, I suppose?—Yes.

5901. Have you ever bought from British or foreign manufacturers to any extent from seeing their things at exhibitions?—No. We have no occasion to buy anything, because our goods are made from raw materials, such as sand and sodas, and neither of those products would ever be exhibited.

5902. There is no scope for new machinery in manipulating your products, I suppose?—No, there is no scope for that at all. It is all hand labour.

5903. Have you discontinued exhibiting, except at Paris and such places?—Our last exhibition was at St. Louis in 1904, and I do not know that we shall be exhibiting in the near future, but any particularly great exhibition that takes place we shall in all probability send our exhibit to.

5904. I suppose your class of goods does not form a subject large enough to have a special exhibition of its own?—No.

5905. Except perhaps with other glass wares?—It really ranks with machinery. It is always as machinery sundries that we are classified.

5906. Not under glass?—It would not be of any value to us to be classified under glass, because the only people who are interested in our goods are the people who have got machinery—steam boilers, of course, particularly.

5907. Do you prefer your goods to be shown as part of a national exhibit, or classified with similar goods from all other countries?—I would rather have them shown classified with similar goods from all the other countries. Any person who wishes to buy a certain thing naturally wants to see the exhibits of all the makers of it together, rather than have to go through the whole of the exhibition buildings and hunt up the various individual makers, the chances being that you may be overlooked.

5908. You can tell us about the last exhibition at St. Louis. Had you much to do with the organisation there—that is, with the Commissioners and the management of the exhibition from our side?—No. We appointed a firm in this country (of which I forget the name) who looked after our interests there. Their business is really travelling to exhibitions, and taking charge of a number of manufacturers' exhibits. You have to pay them so much for supplying a man to look after your things. In addition, I had to send out a man from my own works to build our exhibit up on the premises.

5909. Was that satisfactory?—Yes, it was very satisfactory. We had to send him there for that, but this firm who looked after our exhibit took the exhibit to pieces, and repacked it for us and sent it home.

5910. Can you give me any idea of what the cost was to you of all that?—Our total expenses, including building exhibit, sending the same to St. Louis and erecting the same, also including expenses of sending our workman to St. Louis and the payment of the Exhibitor's Agent's fees, amounted to about £300.

5911. Does that include transport and everything?—Yes.

5912. Did you make direct sales there?—We make all sales in America through one man, who is stationed in New York.

5913. You have an agent there?—We have a sole agent there, and we dare not sell anything to anyone. But, certainly, since St. Louis his sales have gone up each year, and he thinks that keeping the name of the goods before the public and buyers has helped him in that respect. I asked him particularly on that point when I was over there last year, and he said he thought that that had been so, and that he knew of certain firms who said that they had been buyers of glasses, but had not known our brand until they happened to see it in the exhibition, and then they sent to him for the particulars and prices. He said there were several cases of that sort.

5914. I suppose your goods are all bought by machinery makers as practically raw material for their work, are they not?—They are bought by factors, really.

5915. And the factors sell to them?—They sell to the users.

5916. Would the factors stock your goods?—Yes, they do. For instance, we send to this man in New York something like 4,000 dozen of gauge glasses each week, and he redistributes them to the factors, and these factors sell them to the users.

5917. I think you have not any suggestions to make to us as regards improving the British organisation at exhibitions?—No, because I have not a personal acquaintance with exhibitions by having been there to see where the difficulties arise. I certainly think that more people would exhibit could it be done at a more reasonable rate.

5918. Is that as regards the space or the transport?—The space in the last exhibition we got free, but the cost of transport, and the cost of looking after the exhibit when there, were very great. Many people have an exhibit that they cannot put under a glass case, and therefore they must have someone in charge. If some official could be appointed to look after the exhibits, and so save that expense to the exhibitors, I should imagine that there would be more firms who would avail themselves of the opportunity of showing.

5919. As regards British trade generally, you are in favour of our taking part still in international exhibitions, I suppose?—Yes. I do not see any reason why we should not take part in international exhibitions; I do not see where we should get any harm by it.

5920. Do you think it is worth while that this country should pay a large sum of money to go on taking part in exhibitions?—If anyone has anything new to show to a foreign country, exhibitions to my mind are probably the easiest way and the most effective way of showing that thing. Of course, it becomes a very doubtful question with firms who have been exhibiting their goods for many years, and whose goods are known to all the buyers or users of that particular line throughout the world. Exhibitions to them are losing their use, don't you see? But if anyone has something new in the way of new inventions, new machinery, or new processes for producing something, why, then I should think industrial exhibitions would be the best medium for showing this new invention or new product to the world at large.

5921. Do you get your sales through your travellers at all; do you have travellers who go round with samples?—We have travellers in a way. We appoint a travelling representative to a country, who calls round on all the buyers, and he gets a commission on all goods we sell to that country, whether we sell directly or indirectly. His duty is not to actually book orders, but to inform us of indents coming forward to this country, as most foreign buyers, especially in the colonies, buy through firms in London or Birmingham or Glasgow—they are what they call shipping houses and merchants. These merchants send on the inquiries or tender forms for us to fill in. Our traveller's or agent's object is to endeavour to get the buyer abroad to stipulate or indent for our particular article. He does not actually book the order, but he endeavours to get them to tell the shipper that he must have Moncrieff gauge glasses.

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5922. In other words, that he must have gauges of your particular make?—Yes.

5923. (*Sir Swire Smith.*) Do you think the manufacturers of this country have suffered much from sending goods to exhibitions?—From my personal experience I do not know of any case at all, and I have not heard of any case either.

5924. You do not think that these foreigners would copy your goods in any way?—I do not think they need to wait for exhibitions to copy. If they wish to copy they can copy just as easily by coming over and seeing them in this country. Anyone who wants to imitate you will find out your goods.

5925. Would you consider that exhibitions have been very useful in enabling you and other English people to learn what others are doing?—We have had no reason to find out anything that has been made by opponents who have shown at exhibitions; so that really I am not personally in a position to answer that.

5926. Have you to meet a large competition abroad?—Yes; we have to meet foreign competition abroad, but more competition probably from our own country abroad.

5927. Even in other countries?—Yes, from our own country in other countries.

5928. Have you much competition in America with the Americans?—No, we have no competition with the Americans at all; the Americans do not manufacture gauge glasses.

5929. So that America is a clear and open country to you, in spite of their tariff?—Yes, and to all others as well.

5930. But you have the same chances as all other competitors, have you not?—Yes.

5931. Is it your view that even in the exhibition of your own particular line of goods it is better to have a collective exhibit?—I should prefer when exhibiting to have my goods exhibited with similar goods no matter whether they are of British manufacture or not. Whatever happens, you should get your goods exhibited in the class where it would be most likely that buyers would come and see your goods.

5932. Would you favour, in such a collective exhibit, that the selection should be made by some outside authority—that is, by some selected authority, such as a committee or some body of experts selected by the country?—What are they to select?

5933. The best that may be found in every industry?—The best representative manufacturers, do you mean, of each industry?

5934. Or the best representative goods?—I have not given any thought to that point.

5935. Arising out of that comes the question as to the cost of the exhibit. If the State made the selection, you might say that the State might bear perhaps a greater proportion of the cost than it does now; but if you are left to make your own exhibit, then, of course, you would bear the cost?—Would you mean to restrict the number? Take, for example, my own business; is what you mean that a committee would be appointed to select beforehand the number of manufacturers of gauge glasses who would be allowed to send to some industrial exhibition?

5936. No; my question would rather assume that this Committee would not necessarily choose the manufacturers, but would see the goods and select the best goods from each of the manufacturers, so that they would get the best possible exhibit of the particular kind of goods?—In other words, you would practically prejudge the exhibit.

5937. I am merely asking what your view would be as to the best way of getting the best of every manufacture?—I would certainly say, "Let each manufacturer have an equal chance with everyone else in sending his exhibit in, and allow the exhibition authorities to decide which is best."

5938. That really is the point I want to get at. You think that, generally, would be a fairer arrangement than leaving the exhibitors themselves to send what they care to send?—I say that I think every exhibitor should be allowed to send what he cares to send, and then leave it to the exhibition authorities at the exhibition to decide which is the best.

5939. It would be a pity, would it not, to send goods to a foreign country, and then for the authorities to have to refuse to exhibit them? Would it not be better that those goods should be selected in this country?—Why should there be any refusal to exhibit the goods? In other words, you are prejudging the opinion of the judges at the exhibition as to which is the best. It is presumed that the judges in an exhibition who are looking after a particular line of goods are experts in that particular line; whereas it would be more difficult probably to get a Government Committee to decide on all these odd lines without bringing in outside opinion—of course, it would have to bring in outside opinion, and, in other words, you would have to prejudge the merits of the exhibits.

5940. This could only apply in the case where the exhibition authorities in this country desire to obtain the very best possible examples of every industry; and in selecting those they would have the choice of throwing out such as they did not think to be equal to the standard. The Chairman mentioned to you the question of the organisation; have you thought out the best kind of organisation for the representation of this country at an exhibition in a foreign country?—No, I have not.

5941. (*Sir Isidore Spielmann.*) You told the Chairman, I think, that after the Paris Exhibition in 1878, as well as after the Paris Exhibition of 1889, an increase in your business was perceptible?—Yes, at that particular time, which was, however, before I was in business. When I was asked to appear here, I made inquiries from the older members of our staff, and they said that they remembered distinctly receiving letters after the Paris Exhibition, in which the writers mentioned that they had noticed our exhibits and the tests which were going on during the exhibition, and in consequence had written to us for prices. One of our largest buyers in Paris only started from the time of the first exhibition, or the second exhibition—that is one point I am not quite sure of—and when he first wrote to us, he mentioned the fact that he had seen our exhibit and had seen our tests going on during that exhibition. That was one particular case which some of my present office staff, who were members of the staff at that time, are perfectly aware of, as showing the advantage that we had obtained from that particular exhibition.

5942. I think you said your firm had a similar experience both as regards the exhibition of 1878 and the exhibition of 1889; that being so, why were you not induced to participate in the Paris Exhibition of 1900?—That was really a peculiar case. My late father died just a little prior to that exhibition of 1900, and we were not prepared to launch out into new things until we had had time to get a grasp of the business ourselves. I was very young then, and had practically always had somebody to overlook me all the time in any work I was doing, and then suddenly to be launched on one's own—it was only natural that we should not exhibit then.

5943. You did not exhibit in Brussels in 1897, did you?—No.

5944. Nor in Milan in 1906?—No.

5945. Did you visit the machinery sections of any of the exhibitions in which you did not participate as exhibitors?—No. I personally have not been at the exhibitions at all. My father used to attend the exhibitions. St. Louis and Chicago were the only two exhibitions that I was personally interested in, or, at least, was partly responsible for sending an exhibit to, and our agent at New York practically acted for us there, and took full charge.

5946. I think you said you have taken the highest awards?—Yes, in all cases.

5947. What may they be?—Ranging from gold medals down to bronze medals.

5948. When say a silver medal is the highest award, that does not mean that only one silver medal is given, does it?—I do not think so. There may be several people classed on the same level, all receiving the highest awards. I would not like to say for a certainty, but I believe that in most of the exhibitions that we have exhibited in, no one, although there may have been other exhibitors of the same class of goods, has received the highest awards except ourselves.

5949. When other firms, such as German firms or French firms, also take similar awards to yourself, would it not be more correct to say you took one of the highest awards; instead of saying you took *the* gold medal, would it not be more correct to say you took *a*

gold medal?—It is quite possible it would be more correct to say so, but, naturally, if you get it stated on the diploma that you have been awarded a gold medal, which is the highest award, you advertise it in that particular way—that is, in the same way as you get this award given to you; that is to say, you make the most of it.

5950. Now as to your experience of exhibitors' agents; I think you said that you employed a firm at St. Louis?—Yes.

5951. Was it the firm of Day or Hillman?—Hillman I think it was.

5952. What is your experience of these exhibitors' agents?—We had a workman over there as well. He found that Hillman looked after him very well. The workman was one of my firm's staff, and was very capable of looking after the exhibit himself, and he got the thing all nicely arranged. I would not like to trust to any agent to guarantee that they would fix up our exhibit to our satisfaction. That is where one of the most important points in these exhibitions comes in. You must send somebody from your own works if you wish to give the absolutely best possible display, and if you do not give the best possible display you are wasting money.

5953. You would not leave it to the agent to represent the merit of our exhibit to the international jury, for instance, would you?—I would be very pleased, if we were exhibiting, to leave it to anyone who would take it over, because it would only be a case of sending over someone to erect the exhibit, and then if you were absolutely certain of someone who would look after it and keep the place reasonably clean, and be responsible for having someone in attendance, that would be sufficient. We would be willing to pay for somebody in attendance practically during the exhibition, but then if you pay them and have nobody there to see that your man is actually in attendance, it is wasted money. The difficulty in exhibitions in far countries is to get someone to look after your exhibit honestly—that is to say, to look after it and be there all the time that he is supposed to be there, and not to be there probably for an hour or so in the week or in the day.

5954. (*Mr. Malcolm Ramsay.*) How often would you be prepared to exhibit at a large international exhibition?—In the future, do you mean?

5955. In the future?—I should not like to say at all.

5956. Could you give us any idea of the kind of interval which you would think reasonable?—I would not like to make any statement, but I certainly would be unlikely to exhibit before five years had elapsed after the last one.

5957. May we take it that your expenses of exhibiting at a large international exhibition amount to £300 or £400 at least?—It amounted to that at the last exhibition.

5958. That was at St. Louis?—Yes; but that was the most expensive one we have ever had. In Chicago, which is the only other exhibition I was interested in, we had a very much smaller exhibit for one thing, and consequently we did not need to send a man out. We were able to make a sketch of the exhibit, and get the agents, Hillmans, to build it exactly to our desires, without having to send anyone specially over. At St. Louis, we sent out a model made of gauge-glass tubes of a locomotive engine; there were about 14,000 separate tubes in this model, which was practically the length of this room, so we had to send a man out, as no one except a skilled man could possibly put it together.

5959. I suppose you would regard the expenses of participating in exhibitions as part of your ordinary advertisement expenditure?—Exactly; we always classify them as advertisement expenditure.

5960. I suppose you consider it proper to spread the cost over a few years, or until the next exhibition?—I am not very sure, but I think we spread our exhibition expenses over three years—that is, we write them off in three years' time.

5961. Do you advertise largely?—No, not largely at all.

5962. Speaking from the point of view of your own business, would you regard it as a misfortune if international exhibitions were altogether discontinued?—I am hardly prepared to answer, because we have the good fortune to be well known throughout the world now, and we can easily take other means than exhibitions of keeping our name known. I do not think it would affect me personally, but there must be other firms who have hitherto not exhibited, and I think it would be a hardship to them to stop exhibitions.

5963. Do you think that the advantage of an exhibition is mainly for the younger firms who have not got any established reputation?—Or for anyone who has anything new to show. Take a man who builds engines; they are altering in their shape and design and power and everything else, and naturally he may have something new which he wants to show. I think he would feel it a hardship if he had not the means of showing that through these industrial exhibitions.

5964. (*Mr. Harris.*) May I ask you to explain one of your answers to the Chairman? You spoke of exhibitions as the easiest and most effective form of advertisement, and you seemed to use the words as alternative; do you mean that they are the easiest form of advertising from your point of view—properly speaking, the easiest?—I do not remember using those words. Can you give me the question the Chairman asked me, to which I replied in that way?

5965. The Chairman was asking you about the value of exhibitions as an advertisement, and you said you regarded them as the easiest and most effective form of advertisement. I want to know really whether you meant that they are both the easiest and the most effective; or did you use the words inadvertently?—I do not recollect now using the words, but admitting that I did use the words, I was not referring to my own particular line of goods when I said "the easiest and most effective." I was remarking that if anyone had something new to bring before the public—and I would say it still—it is the case that possibly the most effective and the easiest method of introducing something new to all interested in machinery, for example, would be to send their goods to an exhibition; and the greater the exhibition, the more likely are you to have all sorts of industrial trades represented there.

5966. You mean that in an exhibition, we will say, of machinery——?—Yes; supposing, for example, I have a flying machine——

5967. If you have a new idea you would find that the very best way of getting it known to the world would be putting it into an exhibition?—I should consider it to be so; I should say that is one of the best ways.

5968. Do you think it is better than travelling or advertising?—No, not by any means, but then it is much less expensive; I mean to say, if you were to send a man travelling all over the world, you cannot do that under a great many hundreds of pounds per annum. I would certainly say that it depends on the size, and what you want to exhibit. I would certainly think still that if I had anything new to introduce, one of the methods that I would use in order to introduce it would be to send it to an exhibition.

5969. You have not exhibited at New Zealand this last year?—No.

5970. Did you consider whether you would send there?—No, I do not think we did, for the very good reason that we had exhibited in St. Louis, and, as I say, we would not exhibit again for five years at the very soonest. We have done sometimes quicker than that, but of recent years there have been much longer intervals between our sending to large exhibitions.

5971. Are there a good number of gauge-glass manufacturers in this country?—There would be five or six manufacturers, I should imagine, although I really have never had occasion to count them up. I know of five or six, I think, besides ourselves.

5972. Did any besides you exhibit at St. Louis, for instance?—I could not say at all.

5973. I mean from Great Britain?—I really do not know at all. As a matter of fact, I never asked our agent whether any other people were exhibiting. It was more in obligement to him that we sent the goods; at least, he urged us very strongly to do so.

5974. Your American agent urged you?—Yes.

5975. (*Mr. Algernon Law.*) Did your agent object to your exhibiting under your own name—I gather that he did not?—No.

5976. Some agents do?—We would never dream of sending to an exhibition except under our own name—there is no use in paying expenses otherwise; at any rate, we should not do so, unless the agent is going to pay all the charges.

5977. Is there any country where you find the tariff an insurmountable obstacle for the introduction of

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your goods, and where you would not be inclined therefore to exhibit?—If the tariff is so high that you cannot get in, there is no use in exhibiting.

5978. Do you know of any such country?—I do not understand why some of the countries that we get into at the present moment allow our goods to come in at all. As a matter of fact, the only way that I can account for it is that they are not able to manufacture the same quality of gauge-glass.

5979. The machinery interests are too powerful in your favour; is that it?—I think it is this: Gauge-glasses being glass tubes can be made of any ingredient, practically, that glass is made of, and when they are subjected to steam pressure they are very liable to burst. I think that the engineering world practically everywhere have decided that our glasses are less liable to burst than others, and in consequence they will have them, no matter whether they have to pay dearer or not.

5980. (*Chairman.*) I suppose the duties are not so high on the Continent as they are in the States?—No; the States duty is the highest that I am aware of. But we never think of paying the duty ourselves—it is always the people we sell to who do that; so we really do not know about the duties.

5981. (*Mr. Algernon Law.*) Is there any internal competition in America by the natives with you?—I know of one firm in America who manufacture gauge-glasses, and I have been most particular to ask my agent if he has come into contact with them in severe competition, and he says "No." Probably one reason may be that their labour charges being so high, the cost of manufacture is greater than the 60 per cent. tariff.

5982. (*Mr. Wilson Fox.*) I understand from what you say that, having established your reputation, it is not much use your showing now?—It would not be so important for us to show now as it was in our earlier days.

5983. The answer you have just given, that manufacturers will have your goods because your glasses will not break, leads me to put this to you—the fact of engineers or any other members of the public seeing your glasses at an exhibition does not give them any idea of the excellence of their quality when in practical use—that is, of their non-bursting quality, does it?—It does, sometimes.

5984. In what way, now, would that be?—We frequently have in exhibitions a testing-machine for showing hydraulic pressure; and although that does not prove the quality of the glasses in regard to their steam-pressure powers, it certainly gives people a remarkable idea of their strength from another point of view, although it is not, as I say, a practical test.

5985. That is just what I want to elicit from you; it seems to me that there would be no use in showing your class of goods from your point of view unless there was a practical test?—That is so; but still, if we show a quantity of our particular goods in an exhibition, and the exhibit is well got up, people will stop and wonder what the exhibit represents, and when they find it represents gauge-glasses, we naturally conclude that they must have some thoughts on these lines—that anyone who will go to the trouble to send this exhibit to an exhibition will surely have something worth exhibiting.

5986. (*Mr. Harris.*) I suppose that was your idea in having a locomotive the length of this room built up of these gauge glasses?—Yes.

5987. Because that would be a striking thing?—Yes.

5988. (*Mr. Wilson Fox.*) Of course, this particular class of exhibit would only be of use, from your point of view, for getting increased trade, by being shown to experts, because nobody would understand your exhibit except an expert, I take it?—With hydraulic pressure you can show that a gauge glass can stand a pressure of 5,000 lbs., and then anyone who uses a steam boiler, if he sees your gauge glass will stand a hydraulic pressure of 5,000 lbs., immediately thinks it will stand steam pressure very well. Of course, there is no connection the one with the other, but at the same time that makes them stop, and if they see it, they make their inquiries and make their tests, if they have not already happened to have heard of it.

5989. Engineers and many others engaged in the trade visit these exhibitions, of course?—Yes.

5990. At all the large capitals have you got agents, or do you employ travellers; or how have you got your goods known? Is it entirely through the use of your goods, or through these people, so to speak, pushing them forward for you?—It is through the use of them that they have mostly become known. We have a travelling representative, or an agent, in Japan, and another agent in Germany; we have no agents in France, but we have customers all over France—just clients or people who buy from us. Then in South Africa we have a travelling representative, and in Denmark we have a travelling representative. They are not men who are paid a salary by us, but we undertake to pay to them a commission on all goods going in either through them directly or through any indirect source as long as we can trace their going into their country.

5991. Until anything like a severe competitor crops up, this particular form of advertisement, if I may call it so, is not for you really essential at the present time?—No; exhibiting is not essential for me now at all, and it would not injure me personally not to exhibit; but I understand that your idea is to get our view how it would affect other people. I would say that it might be a hardship to other exhibitors if no exhibition was coming forward, especially if a man had any new improvement of any particular thing which he wanted to show off to the world.

5992. May I put it in this way—exhibitions, as far as your particular industry, which is rather a special one is concerned, have, at any rate at the present time and for the present, more or less served your purpose?—Yes.

5993. (*Mr. Algernon Law.*) Are your travelling agents British subjects, as a rule?—No.

5994. So they are not likely to go near our Consuls?—No.

5995. So it does not follow that because a Consul does not find any travellers of yours about, that you are not really travelling?—No. You see the man is not our traveller alone. We could never possibly afford to do that for gauge glasses, for all the money that is in them; if you supplied the whole of the world you could not have a traveller in every country. He may represent probably five or six other firms at the same time. For example, our representative in Canada I am perfectly sure does not get £100 per annum all told from us but then he is representing a good many other firms.

5996. (*Sir Swire Smith.*) In other industries?—Yes, not in ours. In this way he manages to get a living out of it. I suppose the idea is that it is always a very good thing for a man in a country to get a small line like ours, because then he has the right of calling probably on very many firms, which for some other lines he represents he might not get in with.

5997. (*Mr. Wilson Fox.*) Would you say that anybody starting a business of your description ought to exhibit? Suppose you had not got your reputation, would exhibiting be likely to increase your export trade?—If I were making a new start, I should certainly send to exhibitions.

5998. (*Chairman.*) Has the variety of your glasses been affected by the changes in the shapes, sizes and so on of boilers?—Yes. We have had to discover new compositions to make the glass of, in order that it shall be able to stand the higher pressures that are now required.

5999. There have been great changes in machinery of late years?—Yes, there have.

6000. And that has anyhow led to new developments in your business?—Yes, it has led to new developments. The higher the steam power in the boilers the the stronger the gauge glass has to be, because whatever the boiler stands the glass must stand.

6001. (*Sir Isidore Spielmann.*) As you say that exhibitions have served your purpose, have you decided not to participate in any more?—No, we have not decided not to participate in any more, but if we can keep our trade together and go on increasing it without exhibitions, we are not likely to send to them. If there were any particular country where we were not making headway, or where we were going back, and a large International Exhibition was coming on, I fancy we would send to that particular country. We take very careful notes of all countries' business that we do, keeping each country separate in our books; and comparisons are made each year. When one country goes down, if there is any particular reason for it, we try other means, probably by direct writing to all buyers in that particular country, or else by sending someone

over to make a personal visit, and if there is an exhibition probably by trying an exhibit.

6002. (*Mr. Wilson Fox.*) I suppose this particular manufacture of yours is a secret process that you have found out?—It is secret in many ways. There are secret ingredients in the batch, for example, that the glass tubes are made of.

6003. There must be a good many people who would be glad to make glass that would not burst, if they knew how?—I am afraid none of us have discovered how to make glass that will not burst.

6004. You have got as far as you can, and that is further than other people?—We have got so far; but we hope we have not got to the end, still. I think there are a great many things that can be done in this country with a little more expense in the way of scientific investigation. *Mr. J. Moncrieff.* 9 May 1907

6005. Yours is not a process which is likely to be copied, because people cannot tell the ingredients by looking at a gauge?—You cannot tell them by looking at a gauge; it is only by laboratory research.

6006. Therefore there is no danger to you in showing, from the fear of being copied?—No, there is no such danger to me.

Mr. Alexander Gordon Maginnis called and examined.

6007. (*Chairman.*) I think you are the Managing Director of the Goldsmiths and Silversmiths Company, Ltd.?—That is so. *Mr. A. G. Maginnis.*

6008. You have been in business for some years, have you not?—Yes.

6009. Your firm is of some standing?—I think I may say, without any undue modesty, that it is one of the first firms of its character in London.

6010. You have exhibited at several great international exhibitions, I think?—Yes, as a private company and as a limited company we have been exhibiting now for several years.

6011. You were at Paris in 1889, I see?—Yes.

6012. You have not had your premises in London for a great many years, have you?—We were established here in November, 1880.

6013. Then I see you exhibited in Paris in 1900?—Yes; and also, as I have said, in 1889.

6014. But you did not exhibit in St. Louis in 1904?—No.

6015. Why was that?—The distance was rather too great, we considered, at the time.

6016. Were the duties too high?—No, because the duties did not affect the entrance of the exhibits at all; they went through in bond.

6017. I did not know whether you have many sales in the States?—The sales are effected here, but the goods would go through to the States notwithstanding the duty which had to be paid. In our particular business, more particularly in gems, whether the goods are sold on this side or in America, the duty has to be paid equally; on a bunch of pearls the duty is the same going into the States to be sold by a jeweller there, as when a private customer purchases here and takes them in himself.

6018. I suppose the private customer occasionally does not pay the duty?—I do not know about that. That has nothing to do with me, and I cannot give any official information on that subject.

6019. We may have our ideas about that?—Yes; but they are very strict now. There was a recent case in Paris—I do not know whether it has come to your notice—of a large necklace which was sold and which gave a considerable amount of trouble at the Customs at the other side, I am told.

6020. At the last exhibition in Paris I believe you exhibited diamonds, pearls, precious stones of all kinds, gem jewellery, gold plate and sterling silver goods of all kinds, clocks, watches, chronometers and electro-plate?—Yes.

6021. The value of your exhibit being, you say in your proof, £250,000; was that so?—Yes. One item in that exhibit was worth £90,000; that was one row of pearls, which only made a small feature in a large exhibit.

6022. You had some considerable expense in taking care of all those things I suppose?—Naturally. There was a staff of four over there always, and there was always somebody visiting—someone in authority going over and superintending.

6023. Can you tell me at all what it cost you to exhibit there?—It is very difficult to say; the insurance alone would be a very considerable item.

6024. You did not tot it up?—I could get the figures, but I did not look at them before I came here.

6025. (*Mr. Waring.*) Would it be over £5,000 altogether?—Yes.

6026. Would it be nearer £10,000, taking the expense in its entirety—that is, including cases, and so on?—If one takes into consideration certain advertising schemes and things of that sort, yes.

6027. (*Chairman.*) After spending all that, did you get any increase of business that you can directly attribute to exhibiting in Paris?—That is rather a difficult question to answer. Without being able perhaps to give you definite items, I should say undoubtedly we got an increase of business. You must bear in mind that in a place like Paris, which is the centre of the gaiety of the world, I suppose, there is a very large touring and visiting population during an exhibition. Through our exhibit there, we became known to those people in a way which we should never have had the opportunity of in the ordinary way, because a large number of those people do not come to London. But we became known to them at the exhibition, and since then we have opened up negotiations with them, and business has come along—it may be a year after, it may be two years after, or it may be three years after, but we became known to them there.

6028. You are speaking now of buyers from more distant places?—Yes.

6029. Do you mean private consumers?—Yes, I do mean private consumers. Our special business applies more particularly to private consumption than to large wholesale dealers. The only wholesale dealers that a firm like our own would be mixed up with would be the furnishers of a big hotel, or steamships, or things of that sort. We are not like large iron works or engine manufacturers, or makers of things of that sort, who get a wholesale order to fit out a railway, for instance. Our business is more applicable to personal requirements.

6030. You made a personal connection at Paris which was a good thing for you?—Undoubtedly.

6031. On the other hand, did you suffer any disadvantage from having your goods copied? We know you have very beautiful designs, which you probably exhibited?—I never felt any such disadvantage.

6032. You do not know of anything of that sort?—No. A design may have been copied, but it is very difficult to say that we have derived any disadvantage from it.

6033. Do you attach importance to the awards which you have had?—Undoubtedly.

6034. I see that at the Paris Exhibition of 1900 you got the *grand prix*?—Yes, and we are very proud of it ourselves. We have had from many of our customers and shareholders letters complimenting us on the fact of having got such an honour. Therefore we feel that it is a thing to be proud of, and a thing to try and achieve. It is thought a good deal of by the British public, and by the world at large, I think.

6035. Have you ever been induced to buy from seeing things that would help you in your manufacture at these exhibitions; very fine machinery, for instance?—That is hardly a question that appeals to us. Our products are products of nature to a great extent—nature and the artist.

6036. There is not much machinery used by you?—No; it is hand work.

6037. It is very fine handicraft, I suppose?—Yes, purely; so that that question really does not apply to our business.

6038. I suppose you are not even diamond-cutters, are you?—No; there is very little diamond-cutting done in London.

6039. Not more than there used to be?—No.

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6040. It is done still in Amsterdam?—In Amsterdam and Antwerp.

6041. Independent of that, are there any points on which you have derived instruction in visiting exhibitions?—I do not think anyone could go to an exhibition like Paris, which is the one we have been talking about, without having one's mind enlarged. Unconsciously you pick up things which are of use to any man who has got any brains. They may not appeal actually to his particular business, but they enlarge his mind. I could not say that I went to Paris and I saw things over there in my particular business which were of any great service to me afterwards—so that I might say when I took up a thing, "That is very nice; I will go home and make some of those." I do not think I can say that.

6042. But you think it had an unconscious effect on your mind?—Undoubtedly it had an educational influence; and I think it must have in the case of everyone.

6043. You have not exhibited at the smaller exhibitions lately, have you?—There have been none.

6044. There was the Milan Exhibition, for instance, of last year?—That was not very much, was it?

6064. You did not think it was worth while?—No.

6046. You did not think it was worth while?—No.

6047. Then you did not exhibit at Brussels in 1897?—No. I forget what our reason was for that—I cannot recall it.

6048. Then you have not exhibited at any of the Colonial exhibitions—for instance, the recent New Zealand Exhibition?—No. We do not consider that the market out there is sufficient to warrant it.

6049. That is what I wanted to get from you; that was your reason?—Yes; it is such a great distance off.

6050. I suppose you would have been at great expense in sending your representative there?—We would have had to send a staff of four or five men, and a very large stock. With a valuable stock like ours, it makes a very great difference if the exhibition is within easy distance. Paris, for instance, is within easy distance, and anyone responsible could run over to Paris and be on the spot in eight hours. But when our stock is a great many thousand miles away the responsibility is very great, and the expense, of course, is proportionately very much greater. Moreover, the Colonial exhibitions could not be called international exhibitions, could they?

6051. I believe they are called so?—The New Zealand Exhibition is not an international exhibition, is it?

6052. I think so. I believe there were not a great number of international exhibits, but it was called international?—That exhibition would appeal more to makers of agricultural machinery, I should think, than to the manufacturers of fancy goods. You see, we have to study our markets to a great extent, and the European market for our particular goods is far better than the Colonial market. Ours is an article of luxury, of course.

6053. You have the North American market and the South American market to a certain extent; is that not so?—The South American market is opening up into a very great field, I believe.

6054. But you do not think the Colonial market is of very much use for your goods?—Not for the more expensive goods. They have not the society and State functions out there that necessitate diamond tiaras and large pearl necklaces.

6055. Leaving your own particular goods for a moment, do you think this country should take part in international exhibitions generally?—By "generally," do you mean in all parts of the world?

6056. In the large exhibitions; do you think the country should be represented?—Outside our own particular class of industry, are you asking me?

6057. I am asking you now for your general views, outside your own particular class of industry?—I should say, yes.

6058. Would you like to see this country represented?—Yes, and better represented than it has been.

6059. How do you think that could be done?—By better organisation. Paris is the most recent example we have had of exhibitions, and, compared with Germany and the United States, England's court was not a thing to be proud of. England had a certain space allotted to her, America came next, and Germany a little further off. The week before the exhibition was opened, America had a nice sort of concerted court arranged according to the ideas and the requirements of the exhibitors—nicely furnished with carpets, nice decorations, and so forth. Three days before the exhibition was opened the British court was bare boards. The space was there, and it was left to the individual exhibitor to put up his stall independent of any scheme whatever. I was there on the spot for three weeks at a time, and I found that Great Britain was more or less a laughing-stock with the big exhibitors round about, because the nation on the whole had taken no interest in the scheme of exhibits.

6060. Was that owing to the organisation?—I am talking from the exhibitor's point of view.

6061. Were you not satisfied with the place in which your goods were?—No. We were a barn, and the other place was a little exhibition in itself; ours was simply the bare boards in fact.

6062. Did you not put up your own decoration?—On our own immediate stalls, yes.

6063. But you think more should have been done for you?—I think there should have been some general scheme carried out. The wishes of the individual stall-holders should be consulted to a certain extent, I think, because what suits one class of exhibitor will not suit another; otherwise, if you have got furniture, jewellery, perhaps bronzes or statuary, grand pianos, machinery, and one thing and another, you might have the same character of stall for each exhibit. Therefore, to a certain extent, one wants to know who the exhibitors are who are going to occupy the court, and then by consulting them as to their ideas as to what their requirements may be, to get some scheme together to include the whole in a little exclusive exhibition of its own, as it were.

6064. Did you have anything to do with the British Commission at Paris; did you have to go to them for anything?—Frequently; I spent a great many hours there.

6065. Did you find your relations with them and your communications all satisfactory?—Yes. We always got what we wanted. It took some time sometimes, but we generally got what we wanted.

6066. Do you think they were not quite equal to their duties?—No, I do not say that for one moment; and I should be very sorry to say it. I do not think that is quite a fair question to ask an exhibitor.

6067. What do you think was wrong?—I do not say anything was wrong.

6068. You said that it took you some time to get what you wanted?—Yes.

6069. You do not think it took a longer time than it ought to get what you wanted?—It took a longer time than anybody coming into my place would have to waste if they wanted the same sort of thing. As a business man, I should sack the men if they took as long to execute the orders.

6070. Then you think there was rather a lack of businesslike method?—I think so. Perhaps it was—but I do not quite know how to express it without putting it too strongly, and that I do not wish to do.

6071. Very well, we will talk no more about the past. Have you any suggestions for the future? You would like to make the organisation rather more businesslike, I gather?—I should.

6072. In your heads of evidence you say that you would like a small but influential executive committee of business men to be appointed?—Yes, because I feel that a business man knows more what a business man wants. If I were organising an exhibition I would organise it on a scheme which I have already sketched out to you. I should find out who the exhibitors were, the class of exhibit they were going to put in, what they consider to be the sort of stall, or whatever it is they wish to erect; and so work out some decorative scheme which would combine the whole.

6073. Have you thought at all what would be the composition of your Commission?—No.

6074. You did not think of beginning in that way?—No, I did not. I did not think it came within our scope.

6075. I will not press you on that. Anyhow, do you think that an executive committee of business men could be got to give their time?—That would remain to be seen. I simply express that opinion.

6076. You would like to get such a committee?—Yes. You asked what our opinion was, and we have expressed it. We do not say it is absolutely practicable.

6077. That is your idea of what you would like?—It is a thing we should like to obtain.

6078. (*Mr. Wilson Fox.*) Your class of business is just the one in which it is really essential to show your goods, is it not?—Undoubtedly.

6079. Your whole object is to exhibit the goods to the public and let them see them?—Exactly.

6080. It is naturally far more effective to see all these pretty and beautiful things than it is to advertise the fact that you have got pretty and beautiful things in your shop or on your premises?—Yes.

6081. Therefore your particular business of all others is one which is particularly suited for exhibitions?—Yes, I take it so.

6082. It is everything to you to exhibit your jewellery somewhere?—As long as we can make a decorative and attractive show.

6083. You want to catch the people's eye, people out on a holiday who might take a fancy to that £90,000 necklace of yours?—Yes. I take it that is the case with all exhibitions. One goes there with the idea of taking orders or selling goods; it was not purely for an educational or philanthropic object that we spent £10,000 in going to Paris.

6084. What I mean is that a person is more likely to take away a brooch or a ring as a souvenir of the exhibition than he is to take away a steam crane as a souvenir?—No; because in Paris they are very strict about selling rules. In Paris, no sales were effected in the exhibition, because of the duty. All the goods were in bond; they were checked when they went in by the Customs, and they were checked when they came out.

6085. Besides that, you could not renew your exhibit during the exhibition?—Naturally.

6086. Therefore you would only take orders?—Therefore the souvenir would not apply in that case.

6087. Still, they could order one?—That is true.

6088. We know that in all exhibitions you can only order?—Yes, the actual exhibit would be retained there, of course.

6089. You could send another across in a week?—If you came along and said you would like to purchase the £90,000 necklace at the end of the exhibition, there would be no difficulty in retaining it.

6090. I dare say you would be able to provide one in less time than that?—No.

6091. You would probably be able to provide me with one in a week from now?—No, I do not know of one. I wish we had that now; it would be worth double.

6092. You also show, I suppose, not only for the purpose of getting orders at an exhibition, but to get some regular export trade abroad in the future?—Yes.

6093. To make a connection?—Yes, certainly.

6094. And you also show, I suppose, with the object of helping your home trade?—Yes.

6095. I understand you to say you think that exhibitions are a very important element in the methods of pushing your business?—Judging from our own experience, yes.

6096. And therefore you are prepared to show abroad frequently, I suppose?—Yes. I am not going to say I would show at a very great distance from home. As I have explained to you before, the value of our goods, the expense of sending them out, and the responsibility of having goods of such value a long distance away from our fountain head is a great disadvantage to us.

6097. How often would you be prepared to show at a large exhibition, and incur this very large expense?—I should say that if exhibitions are held every year, they would be practically no good, and people would get sick and tired of them.

6098. How often would you care to show if you had your choice?—I should say every five years.

6099. That is quite good enough for you?—That is quite frequent enough for big exhibitions; it is the very smallest interval, and I should be inclined to put it at more.

6100. That is quite good enough for the purpose of advertising your goods?—To show once every five years is quite good enough.

6101. For the purpose of advertising your goods, you are content with five years?—For advertising my goods, no, because I am advertising my goods every day.

6102. I know that; I mean advertising them in this particular form?—Yes. I think if exhibitions were held more frequently the people would not go to them.

6103. And further, there is also the question of expense?—The question of the expense is, to a certain extent, the main one, because I do not think, if held frequently, they would pay the expense; they would be failures.

6104. Do you think if manufacturers show too often there would be a danger of their not making really effective exhibits?—I do not say that, but I think that the public who attend exhibitions would get tired of going to see the same sort of things periodically year after year. The exhibits may be equally nice and equally inviting, but the public will not go to see them.

6105. And that affects you, if the public do not go?—That affects us, naturally. Unless the exhibition is a success, it is no good our going.

6106. One other question, quite apart from your own business. You have made some criticism upon the way in which the British sections are decorated and made up; from what you saw at the Paris Exhibition during the three weeks you were there, how did the foreign exhibits—I am not speaking of the jewellery, but from a general point of view—compare with the English ones? Do you think they were good, bad, or indifferent, compared with the British ones? Were you proud of the British section compared with the others?—No, I was not.

6107. Was it the quality or the quantity that you had to complain about?—I do not think the right firms were represented, and there were not sufficient of the good firms represented—I mean the high-class firms of the country. If we took a directory, and took out certain firms of this country, and induced them to make an exhibit in Paris, I think we could, if we like, turn out a far better show than we had in 1900.

6108. Therefore, you think the British exhibit then was not really a good representative one of what England can do?—No, I do not think it was.

6109. (*Mr. Algernon Law.*) What steps do you think should be taken to induce good firms to exhibit for the credit of the country, not merely for their own benefit? Some firms are doing a very good trade, and do not care to exhibit, as they have established their reputation. If it is good to have British participation, what inducements would you hold out to these good firms?—I do not know indeed. We all want to do business.

6110. Do you attach importance to Government participation, and to the fact that there is a Royal Commission?—Yes, certainly.

6111. Do you attach importance to a body which is not a Royal Commission—such a body, for instance, as got up the Milan Exhibition, with the assistance of the Government, but not as a Royal Commission? Were you invited by that body, which was got up chiefly by the London Chamber of Commerce, to join in the Milan Exhibition?—We had certainly some documents sent to us, but I could not tell you where they came from?

6112. You did not attach any importance to them?—We did not consider that it was an exhibition sufficiently important to warrant our going into it.

6113. Was your decision influenced by the nature of the body that invited you?—No. I do not think we paid much attention to it; we thought more of Milan than of anything else, and of the possibility of doing business in connection with it.

6114. Did you exhibit at Glasgow?—Yes.

6115. Would the existence of a high tariff prevent your exhibiting in any particular country?—Can you think of any country where you would not exhibit on account of the tariff?—Not at all. That does not affect us, because the import is not ours. The customers pay the import duties; and if they choose to pay them it does not affect us at all.

6116. How do you think the difficulty of arranging exhibitions could be overcome? The Commission has a certain space assigned to it, and it must be difficult to know what will be the quantity of goods or the area covered by the goods of the various exhibitors?—I know the committee must have had very considerable diffi-

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culty in coming to decisions. We have always had to beg, in the first place, for a great deal more than they were liberal enough to give us.

6117. I suppose it really could be overcome by having a small model of the exhibition at headquarters in London, and all the things being drawn to scale and fitted in; then people could come and see where they would be?—A man exhibiting furniture may put in £10,000 worth of furniture, and it will take up ten times the amount of room that we should want for £250,000 worth of goods.

6118. Unless it was all arranged beforehand, of course, there would be overcrowding?—It must be arranged beforehand.

6119. And it could apparently be arranged beforehand by a model?—I should say there would be no difficulty in that.

6120. (*Mr. Harris.*) An exhibition such as that at Paris costs the Government a good deal of money; supposing the Government withdrew all participation in international exhibitions, what would you do? Would you say, "That finishes it; we will drop out"?—There must be an organisation of some sort. For instance, there is to be an exhibition held next year in London, for which the Government has no Commission—the Franco-British Exhibition—at any rate, I do not think there is a Commission in connection with it. There is an organisation composed of a large body of influential gentlemen, who have held meetings and formed various organising committees and sub-committees.

6121. Do you not attach much importance to the participation of the Government?—Yes; I have said that I did. I think a Commission is a very good thing, and a thing to be desired. I put myself in the position of a foreigner. A foreigner coming here and thinking of exhibiting in England, if the exhibition were under the ægis of the Government, I think he would feel very much more satisfied that it was going to be a sound thing than if it were under the influence of a private committee. The same with yourself. If I was going over to Germany, I probably would not know anything about the private committee, which would be formed there, although it might be perfectly good in every way; but if it were under Government auspices, I should feel then that there was some guarantee that we were going to get something for our money.

6122. Would that fact have a material influence in determining you to exhibit or not?—In foreign countries I should say yes.

6123. Have you any notion what percentage of your general advertising expenses the cost of exhibiting at an exhibition may be?—No.

6124. Can you say at all whether it is a large proportion or a small proportion?—I do not know. Will you kindly repeat the question?

6125. Have you any notion what percentage of your general advertising expenses would be the cost of exhibiting at an exhibition which you would call a large exhibition?—That is the whole expenses of the exhibit?

6126. The whole expense, quite apart from the value of the exhibit; what proportion does that bear to your general expenditure on advertising?—An exhibition happens once in ten years perhaps, and advertising is going on every year; so if you split up the expense of advertising in an exhibition once in ten years, it would bear a very small proportion to the general advertising. But if you take the whole cost of exhibiting and put it against the general advertising for the same year, then of course the proportion is much greater.

6127. The point of view you took first was that which I was trying to get at. Now have you considered at all whether you would prefer at an exhibition to see the gold and silver trade of England represented by one large collective exhibit, of which you only form a small portion?—We were approached in that respect in 1900, but the scheme was never taken up warmly by the trade as a whole, and I feel sure it would never be a success.

6128. You are clearly against it, then?—I feel sure it would never be a success.

6129. When you say it would not be a success, do you mean that you do not think it would pay each firm?—I do not think you would get the firms to co-operate. It is hardly reasonable. Here am I, and my competitor is next door. We are practically cutting each other's throats in common parlance, and to ask us to go there and sit down side by side at an exhibition is not reasonable.

6130. But you now sit down side by side at an exhibition?—Yes, but we have our separate entrances and our exits, and there is a fence between us, so to speak. Then we each have our own men there guarding our interests, and we are purely separate institutions. No, I do not think it would ever be a success.

6131. Do you not think you could equally preserve your individuality if you had, as it were, a great national gold and silver exhibit?—No. I would not be a party to it.

6132. You referred to a committee of business men; in thinking of that, did it occur to you that possibly you might get a good deal of business jealousy—the very thing you have just referred to?—No, I do not think you would. I do not mean to say that each trade should be represented, but there are men, capable business men, at the head of very large establishments in this country, who would be above petty jealousies, I think, and if they could be induced to act as such a committee, I think it would be an ideal one; but, mind you, I am not here to suggest any names.

6133. At any rate, you express a pious hope?—Yes.

6134. (*Mr. Malcolm Ramsay.*) I suppose you do spend a considerable sum in advertising every year?—Yes.

6135. In fact, I know you must spend a great deal, because a good many of your catalogues reach me. Following up Mr. Harris's point, if you spread the cost of going to an exhibition over a series of years, it does not come very heavy in your bills, does it?—No. We are quite prepared to do that.

6136. May I go further, and say it is not more than you are prepared to do on your own account?—Certainly.

6137. You have been quite willing to go to these exhibitions where you have thought there was business in it, and to stand the racket of it?—Exactly so.

6138. As regards the future, will you go on, assuming that there is an international exhibition in a place that suits you?—Certainly.

6139. But you prefer, when you are going to an exhibition abroad, that you should be able to do that under the auspices of the Government?—Certainly.

6140. You think you would have a better chance, provided the organisation is effective, of insisting on your legitimate rights then?—Certainly, I think so.

6141. Do you claim that the Government should give you any financial help?—I do not see that we have any right to that. We are going there purely as a commercial venture, and if I thought it would not pay I would not go.

6142. (*Chairman.*) But you want some decorating done?—That is as regards the general scheme. You cannot expect us to decorate the whole of a court a hundred yards, or fifty yards, long, or whatever it may be.

6143. (*Mr. Malcolm Ramsay.*) Put it this way: Supposing the Government did the whole of the decoration and so on according to a uniform scheme, would you be prepared to pay your share *pro rata*?—May I ask a question before answering that? In previous exhibitions the Government have devoted a certain sum of money to the decoration of the courts in a way, I believe?

6144. Yes?—I know that in Paris they hung up flags, put down a carpet, and so forth. I presume there was a fund allotted by the Commission for the purpose of decoration, though the fund allotted by America and by Germany was much more liberal than the one allotted by the English Government. That is my point, I think; they did spend money on it.

6145. I was only asking if in future you would be prepared to contribute towards the expenses of having a more uniform decoration?—I do not know that I should have any strong objection to a reasonable payment. I do not say that positively; I should want to think the matter over and to have a suggestion made to me before I said anything positively on that subject.

6146. Following up Mr. Harris's question about coming forward in some form of a collective exhibit, would you be prepared to come into a system a part of which was that the organising committee or body

should have an absolute right of selection from amongst the would-be exhibitors? One object of the Government in approaching exhibitions might presumably be to get as good a display of the various trades of the country as it can; to do that it seems reasonable, does it not, that the Government, or that the managing body, should have strong rights of selection—that is to say, the individual exhibitor might apply to the committee for permission to exhibit so-and-so, and it should be for consideration whether he had a sufficient standing or not?—Has that not happened already with previous Commissions?

6147. To a certain extent I think it has?—In an exhibition which has been more or less successful, I think the undesirable ones have been squeezed out, so to speak, and there has been no room found for them. It is a thing which can be done, I think, without making any fuss about it.

6148. (*Sir Isidore Spielmann.*) You say in your heads of evidence that Great Britain should make the most effective display possible; if we could not make the most effective display, would you recommend that we should abstain?—I do not like the idea of crying bad fish; it means that really.

6149. Would you disapprove of our participating in the minor exhibitions, when they are perhaps badly done and we should not show to advantage?—When the exhibition is badly done, I should say "Certainly not; have nothing to do with it."

6150. You would rather see the country stand out altogether?—Unless it is an absolutely first-rate international exhibition.

6151. You have expressed your disapproval with the appearance of the English courts, and of the exhibits having all kinds and sizes of show-cases and so forth, have you not?—No, not that; I do not criticise that adversely, because it is necessary that exhibitors should have, and they must have, different sized show-cases. What suits a furniture dealer will not suit us, and *vice versâ*. Then a man showing needles and pins will want a different case. So there must be show-cases of diverse sizes. But what I think and say is that those should all be so arranged and contained in an ornamental court of some kind as to give a tone and character to the whole.

6152. Is it not just that fact, that all the exhibits in the German court and in the American court to which you have referred were of the same uniform nature, that gave them such a very attractive appearance, and is not that method capable of being applied in this country?—All the show-cases should be of a similar nature.

6153. Is it not the fact that they are uniform in Germany and the United States?—I do not agree about the decoration in the United States section. The decorations which Messrs. Tiffany had in the United States court were not adapted to Tiffany's business; they were too heavy altogether; they were quite dark, like a cavern.

6154. Can you expect us to make the same handsome appearance if we do not adopt the methods which Germany and the United States adopt?—I think it might be done.

6155. But not if we leave it to each individual exhibitor to do as he pleases?—No; it should be done under the superintendence of the executive committee. Anything that an exhibitor wishes, and any suggestions, should be submitted to the committee and approved, but he should have the right surely to have the sort of case which suits his business.

6156. In the case of firms joining and participating in collective exhibits, that also helps to make the courts uniform?—In a collective exhibit?

6157. Do you express disapproval?—I say a collective exhibit is out of the question in our particular business.

6158. But suppose you were approached and were asked to exhibit for the credit of the country, would you join in a collective exhibit so as to make a fine display?—If I were asked by whom?

6159. If you were asked to participate in a collective exhibit for the credit of the country, would you do so?—Then I should not look upon it at all from the point of view of an international exhibition.

6160. Would you hesitate before refusing?—Certainly. If I were asked for the credit of the country to send one or two special specimens of our work, I should be very pleased to do so.

6161. (*Mr. Wilson Fox.*) Would it not depend upon how often you were asked?—I should think it would very likely. But that is rather different from a collective display, I should think; we should be forming then a loan collection, I take it, like a museum, each firm sending one or two examples of their handicraft simply on loan.

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6162. (*Sir Isidore Spielmann.*) That is the idea.—Then it is a loan exhibition, surely. In our particular business, if we exhibit a fine thing, visitors want explanations, and so we like our man to be there on the spot to explain, to the people who appreciate them, the niceties of the different things. But if it were a loan exhibition, and the things were locked up in a case and simply exhibited to the public at large, it would not be of the slightest use to us.

6163. If you had your agent there, who to all intents and purposes managed your own exhibit, would you then object to participating in a collective display?—Yes, I should; because I would not send in a representative exhibit in a collective form. I would not mind, as I said just now, sending one or two fine examples of our work to be exhibited as a national exhibit.

6164. Would it not be an inducement to participate in a collective exhibit if you were assisted financially, if space were found you, if a show-case were found you, and if a certain portion of your expenses as regards transport, for instance, were found you?—Yes.

6165. (*Mr. Waring.*) I should say, from my knowledge of your business, that you are a good example of what I may call the retail trade; yours is one of the front rank houses in what one may call the retail trade, and therefore quite representative?—Yes.

6166. And of the modern spirit of progressive houses in the retail trade?—That is so.

6167. Therefore it is very interesting to have your views on such matters as Sir Isidore has been discussing with you. I would suggest that the spirit of what is known as the "shopkeeper" is rather in favour of exercising his own individuality as against the products from a neighbourhood like Bradford. The shopkeeper would be of your view, and would prefer to use his own individuality as regards the particular case and the particular form of treatment and arrangement of his goods?—That expresses exactly what is my idea.

6168. That is your point, I think?—Yes.

6169. You quite appreciate that where you take the textile industry, or anything of that kind, that may be a matter for a collective exhibit?—Yes, possibly.

6170. On your point as regards your own industry you are very decided and very definite?—Yes, most certainly.

6171. I understood you to say that you are an absolute believer in the principle of international exhibitions?—Yes.

6172. I suppose it is your impression—and you appreciate the two points of view—that there is the national point and there is the individual point, the national point being a national advertisement for the country and of the products of the country?—Yes.

6173. And then also there is its possibilities from your own standpoint of the retail trade?—Certainly.

6174. The individual point of view being your own *raison d'être* for going there, which is generally, in the case of a commercial man, a question of profit?—Exactly. I quite appreciate the two.

6175. And you quite believe that international exhibitions tend to develop and extend trade?—Undoubtedly. You say trade generally, but I am speaking of my own trade and as far as my knowledge goes.

6176. I am speaking now of your own personal experience. Even if you do not get trade immediately, on the spot, and no one walks away with your £90,000 necklace, indirectly and generally you feel the influence of it?—Undoubtedly, in the indirect result.

6177. But you are quite clear on that, with no reservation in your mind, from the business standpoint?—We do derive benefit; if not directly on the spot, then we get it afterwards.

6178. Do you think it would be a bad thing if the Government determined not to support international exhibitions, and not to give their countenance to them?—I do. So long as international exhibitions exist, I think they ought to be supported by the Government more particularly, if I may use the word, as an assurance that the exhibition and the executive

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are going to be right, and can be thoroughly relied upon and depended upon by foreign nations or exhibitors coming in. Go to Germany, and you will find that Herr this and Baron So-and-so from the executive committee; but we do not know who they are. If the executive is composed of members appointed by the Government, then we have confidence in going, and we know that we are going to be rightly treated, and that the thing is not going to turn out a swindle.

6179. As regards international exhibitions, our only point here is their control, organisation, and administration; and on those points I do not think you need be in any way apprehensive with regard to what you say in the way of criticism. The object of this inquiry is to improve upon the past, and with that object to know the defects of the past, in order that they may be rectified. So this question of the criticism of what took place is not a personal matter. I know a great many people felt as you have felt; your feeling was that, taking Paris as a case in point, it might have been very much better administered?—That is so.

6180. Instead of things being done in what you would call a businesslike manner, they were lethargic, and a number of obstacles were put in your way, instead of the friendly assistance that you think you should have had?—That is very nicely put, I think.

6181. But I think that is your point?—It expresses my views very well, and it is comprehensive.

6182. That is your feeling in the matter; and you think that if an exhibition is to be held, everything should be done to really help it in a vigorous, friendly way?—I do not see what the Commission is for—the executive committee, at any rate—unless it is to help the exhibitors.

6183. I do not want to say this in any way offensively, and it is not meant to be offensive, but it is a term which I am unfortunately obliged to use in a certain way in putting these things: there was a good deal of officialism, from your standpoint, in the way it was conducted, was there not?—You know the feeling, perhaps, of business men, about officialism?

6184. That is your point?—There is just the difference between a practical business method and officialism.

6185. The point being that in the one case, summing up the business man's method, there would be dispatch in getting things through?—Yes.

6186. And, in the other case, there was not that dispatch which you feel might have been exercised?—I do not want you to draw me out to say too much.

6187. You are clear that things could be considerably improved, and that there might be a much better conduct of the organisation?—I think so.

6188. Your impression is that you would not like exhibitions to be without the countenance of the British Government, or you would not like it to be without that connection and that character which is given to it by some form of Commission, providing it was done in combination with a body which, as you put it just now, understood the character and details of business or of the various classes of business?—That is so; I should wish for the countenance of the Government, certainly.

6189. That would be an ideal sort of thing, if it could be worked?—I would wish for that certainly.

6190. I would rather put your point in this way: I think you were suggesting that although you did not approve the German system or the American system of applying the same form of decoration to the whole of the exhibit, the end you have in view might be effected by a better classification and concentration of the different trades, bringing them all together, so to speak?—Yes.

6191. And, as you put it just now, the decoration of one, although effective as regards that group or class of trade, would not be perhaps the thing for other trades?—Certainly.

6192. All those are points, I take it, that you think should be determined by business men on the spot?—Not on the spot; they ought to be settled beforehand.

6193. But they would appreciate that?—I think so.

6194. They would foresee matters of that kind?—They ought to be pointed out to them.

6195. They would probably foresee them as business men?—I think so.

6196. The effect being that they would know their own requirements?—Yes.

6197. There is just one point with regard to the financial help: You were saying that Germany spent more money in assisting exhibitors than England, I think?—I made the remark, with reference to the decoration of the court, that England's contribution was a carpet and two or three flags.

6198. Would I be right in saying that you were very disappointed with what one may call the practical effect of the English court?—I was.

6199. You were very disappointed with the *ensemble*?—Yes.

6200. Might not the money have been more effectively expended, if less had been spent on the housing of the Commission and more on the court; would it not then have been more effectual from the country's standpoint?—I have not an idea what the housing of the Commission cost.

6201. If you had anything to do with it, you would certainly suggest, would you not, less expenditure there and more on the court?—I think the Commission should have a house worthy of its dignity, and I do not know what the expense was. You are alluding to the offices, I presume?

6202. To the Royal Pavilion?—That is a matter I do not know about, and I do not feel I could answer a question of that sort.

6203. You did not show at St. Louis, did you?—No.

6204. Was it because the distance was so great, and the cost would be so large, that you did not think you would derive sufficient advantage from it?—In addition to the cost, there is the responsibility. We have a responsibility for our goods that does not exist with a great many goods, and you must take that into consideration in addition to the cost. When you are showing a little bit of a thing that we can put into a pill box, but which is worth £5,000, there is a considerable amount of anxiety felt by the management on this side in knowing that it is 20,000 or 30,000 miles away. Your man who has taken charge for you may be as honest and straightforward as possible, and the best man you could have, but you always feel a great amount of anxiety about goods of that character when they are such a long way off, and away from your control. I should have been very glad to go to St. Louis if St. Louis had been accessible in a couple of days or something of that sort.

6205. The distance would be a point then?—It was the distance and the feeling that we had got perhaps £100,000 or £200,000 worth of goods there—£100,000 perhaps, because we should not have sent as much as we should send to Paris, owing to the distance being so great. There is the responsibility of knowing that you have got £100,000 worth of goods there, but you do not know what happens to them; and then they are goods which are easily converted, and goods which can be stolen with the greatest ease.

6206. On the other hand, one would imagine that there is a tremendous purchasing power in America?—True.

6207. I suppose *pro rata* the Americans spend more money in the purchase of jewellery than any other nation in the world?—I should say they do.

6208. They have to get new jewels?—Yes.

6209. In America they have to create their ancestral jewels?—Yes.

6210. And so they are very heavy purchasers?—Yes.

6211. The effect of this was that you did not exhibit at St. Louis; but supposing the suggestion had been made that a great deal of the cost would be eliminated, and that from your standpoint you would be helped so far as regards this £8,000 or £10,000 that you would have had to spend, would that have affected you?—That is a point that would not affect us, because, as I say, beyond the cost, there is a certain further responsibility and anxiety.

6212. The great distance was prohibitory from that standpoint?—Yes.

6213. (*Sir Swire Smith.*) You tell us that you are in favour of international exhibitions?—Certainly.

6214. Do you think that the time has come for the holding of one in this country?—That is rather a pertinent point. It depends how much assistance is going to be given to the Anglo-French Exhibition that is to be held here next year. I am given to under-

stand that it is going to be an exhibition of some size, and that would be a great factor to my mind as to the advisability of holding an international exhibition the next year after.

6215. You recognise the enormous responsibility of starting an exhibition?—Yes, but I quite think it is time that England were represented by a great international exhibition. We have not had one since 1862.

6216. Do you think the educational influence would be very important?—I think so. I think it would be good for the country at large, both educationally and from a business point of view.

6217. You gave us your views with regards to firms exhibiting which rather conveyed the impression to me that you did not favour a collective exhibition in your own industry?—Certainly.

6218. But surely you would favour collective exhibits in some other industries that were not so detailed?—I do not think that is a fair question to put to me, is it?

6219. Take the textiles?—Is that a fair question to put to me? To answer that question, I ought to be in a position to know whether a collective exhibition would be good for the textile makers.

6220. (*Chairman.*) You mean that you cannot answer the question because it is not in your line of business?—It is not my line at all.

6221. (*Sir Swire Smith.*) The object of having a collective exhibit is to get the best possible exhibit of everything the nation produces?—I know nothing about textiles. I should imagine that a collective exhibition would be very good for textiles, but I do not know, and I am quite open to correction on that point. That is a point I really do not know anything about; I have not thought about it.

6222. Referring to the question of cost which Mr. Waring put to you, of course the cost of exhibiting cases of jewels, so far as the space they require and so on, would not be particularly great; and, therefore, the question of the Government bearing the cost of the arrangement is not a very big one, is it?—You must bear in mind that although the cost of conveying them is not great, the insurance of those jewels is a great item.

Mr. A. G. Maginnis.
9 May 1907.

6223. That I can understand, but I want to put this to you: Although you would leave very largely the responsibility of the exhibition of your class of goods to the exhibitors themselves, would you say the same with regard to the large exhibits, such as steam engines for example, that would have to be brought together at a very great cost, when the object was of giving an impression of the country's greatness in that direction?—I do not know. I think even with the steam engines it is a matter of business with the manufacturer. The mere fact of advertising a certain make of steam engine has, I should imagine, in the past conduced to the placing of very large orders from foreign countries in England.

6224. Sometimes?—Individual exhibitors of steam engines would profit thereby.

6225. You would leave it to the individual?—I think so.

6226. (*Mr. Harris.*) You explained just now to Mr. Waring why you did not go to St. Louis; why did not those reasons operate in Chicago and California?—We did not send to either Chicago or California a representative exhibit of jewels anything like that which we had in Paris. We made for Chicago a very large exhibit of mechanical clocks, and things of that sort, and a Columbia shield illustrative of Christopher Columbus or some specimen piece of that kind. We did not make in those exhibitions a display of expensive jewels.

6227. (*Mr. Waring.*) I take it that it was rather a bold policy of yours going to Paris, because Paris is the great centre, possibly the greatest centre in the world, for jewellery—in the Rue de la Paix, and all round there, for instance?—Yes.

6228. Consequently, in going there you were in a certain degree holding up the British flag and demonstrating that jewels could be bought in other places than Paris?—That was our object entirely, not uncrowned with success, fortunately, for we got the Grand Prix.

TWENTIETH DAY.

Thursday, 16*th May* 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Mr. Alan S. Cole, C.B., called and examined.

6228* (*Chairman.*) Of course, as we know, you have been for a very long time connected with South Kensington?—Yes.

6229. You have had experience in connection with exhibitions?—Yes.

6229*. Having been engaged in forming special collections of selected examples of work?—Yes.

6230. In your heads of evidence you say, "The Commissioners had ascertained that collections of this particular character would not be formed by groups of manufacturers or otherwise." Whom do you mean by the Commissioners?—The Commissioners of the particular exhibitions. In the case of the Exhibition of 1867 it was a Royal Commission.

6231. That was in Paris?—Yes. That was the beginning of my work. I was younger than I am now, and they gave me a collection of stained glass to look after.

6232. I see you had a curious combination under your charge—you had stained glass and racing plate?—Yes.

Mr. A. S. Cole, C.B.
16 May 1907.

6233. Was the stained glass for churches?—Not entirely. There was a big avenue in that exhibition, the upper part of which had to be decorated; the French were putting up stained glass on one side, and the English Commissioners said they would put up stained glass on the other side. We could not get exhibitors to come forward, and so the Commission said, "We will collect good specimens of modern glass and put them up." So we decorated that side of the main avenue of the exhibition.

6234. Then afterwards, at the series of international exhibitions which were held at South Kensington from 1871 to 1874, you looked after and arranged collections of furniture and general decoration, house decoration, church decoration, and small artistic articles of use, metal work, and textiles?—Yes; they were called collections of Miscellaneous Art.

Mr. A. S. Cole, C.B.

16 May 1907.

6235. You organised in 1872 and 1873 collections of lace and embroidery?—Yes.

6236. Those are subjects in which I think you are especially interested?—Yes.

6237. Then I see you pass on to the Paris Exhibition of 1900; did you not take much part in exhibitions between those times?—No; though I went and saw the intermediate exhibitions at Paris.

6238. In Paris you organised a show of the works done by students at various Schools of Art connected with the Board of Education?—Yes, in 1900. The Board undertook to supply a selection of such works, and I managed its arrangement. Then, at the instance of the Royal Commission of that exhibition, I undertook the arrangement of special collections of new scientific apparatus, of photographs (scientific and pictorial), and of printed books and other forms of literature.

6239. In doing all that work, I suppose you got into touch a good deal with the chief manufacturers of these articles?—Yes; acting on the advice of one or two experts, I got into touch with leading producers.

6240. In fact, you formed rather on your own responsibility a sort of collective exhibit of these things?—Yes, but with the advice of the experts in each particular subject. For instance, in the case of photographs, I had the advice of General Waterhouse, who was president of the Photographic Society. Then there is another society, the Salon, which is managed by a committee, and is purely for pictorial and artistic work, whom I consulted. Sir William Abney also advised on the scientific side, and Mr. Craigie and Mr. Horsley Hinton advised on the pictorial side. We formed the collections with those two kinds of advice.

6241. At St. Louis, in 1904, you went back to the laces, embroideries, velvets, silks, prints, and so on?—Yes. The Commission asked me whether I would serve on a Committee, and when I attended, told me that they wanted to have a show of that kind. I said it could be done if they would find the money, although the time was short. They asked me for an estimate; I gave them an approximate estimate for building a court, collecting, transporting and arranging the exhibits in it, and we worked well within that estimate—I think, on winding up the accounts, we were £200 within the estimate.

6242. For these exhibits you had to apply to the producers of the various articles, did you not?—Yes, very much so. It was a question practically of my picking out what would fit in best with my views of the arrangement, and what would make a pleasant-looking thing.

6243. Did you always have in view the *ensemble* of the exhibit?—Yes, entirely so.

6244. Still you tried to get the best things?—Certainly.

6245. It was not a very large show altogether, was it?—No, it was not a large show. Take, for instance, the silk manufacturers, they would not do much, and they were not interested; however, Mr. ——, who is a leading manufacturer, agreed to help, and he gave number of very good specimens; I told him the space was restricted, and I only wanted to fill up so much space. Then Messrs. ——, of Nottingham, supplied me readily with a very good show indeed of Nottingham lace curtains. Besides Messrs. —— I saw nearly a dozen other manufacturers, and between them they gave me a very good selection of what they call their fancy laces, their dress laces. Then I got from Ireland a number of things, and from other places too.

6246. Now I will take you to our second question, about the effect of exhibitions on the manufacturing and export trades. Do you think that the work which you have done in connection with exhibitions has had a beneficial effect on our manufactures and trade?—That is a big question, and I have not had sufficient experience to reply to it fully. I judge by what I see. I see that there are several new firms cropping up, who show medals, as evidence of what they have done at exhibitions and of their appreciation of what has been given to them. I know that big producing firms have started works abroad, and have opened agencies and shops abroad for their productions. Whether that is wholly due to exhibitions or other causes, of course, I cannot say, but one connects them together in a sort of way.

6247. Do you think in the particular classes you have mentioned to us—Stained Glass, or Laces and Silks, or the Miscellaneous Articles, there has been a greater foreign demand?—I think foreign appreciation has grown enormously for English artistic work. I think you will find that in Germany and in France there is a very strong appreciation of *le goût Anglais*.

6248. You have been rather whipping up these people to do what is their own business, and what they ought to do for their own sakes, ought they not?—I whipped them up because, I suppose, the Commissioners who conducted the exhibition found that the people were not ready in coming forward. I looked at it from the point of view that it was part of a political move—an act of courtesy towards the country holding the exhibition—to make a representation of British goods there, and that we were to do the best we could.

6249. That was the political side of it?—Yes.

6250. But then, of course, you did it also with a view of helping the commercial side?—Yes, I thought of trade as well.

6251. Do you think these exhibitions have helped trade generally?—I should say certainly that the appreciation abroad of our manufactures is much wider than it was, and that that appreciation is largely due to exhibitions.

6252. Though we have not been well represented by the manufacturers themselves?—I think so, though we have not always been well represented by the manufacturers themselves.

6253. On the other side, can you say whether commercial interests have been adversely affected by exhibitions?—There, again, I really do not know, and I could not say.

6254. I suppose from your experience you are inclined to attach importance to the participation of this country in exhibitions?—Yes. Not uniformly, but as occasion arises, I think it is desirable that the country should take part in an exhibition. I do not know whether it is to be looked at from the political or from the commercial point of view, but I should be sorry that at a really big exhibition the country should not be represented. I think at small exhibitions or at special ones it does not perhaps much matter.

6255. Without Government grants, I understand you do not think we could get proper representation?—No; under those circumstances, I think not. I am answering particularly in relation to exhibitions abroad.

6256. And I am meaning exhibitions abroad, as we are not considering directly the holding of international exhibitions in this country; our subject is more the official participation of the Government in international exhibitions abroad. As regards the practical issue of the Government helping in these official exhibits, have you any suggestions to put before the Committee as to how the grant should be made—whether by accommodation facilities, or by helping in the expense of transport, or by organising, or in any other way?—I think that the Government facilities ought to extend to assisting the inlet of the goods into the country concerned. Whether the Government should bear all the expense of carriage I am not so sure about. I think in many cases the carriage might very well be borne by the exhibitor. In some cases—especially in those cases where the Government are going to make a show for the sake of making a show—I think the Government ought to bear expenses of transport and organising the whole exhibit.

6257. Your experience has chiefly been in what are practically collective exhibits, I think?—Yes.

6258. I suppose you and your expert advisers have been the judges as to what should be exhibited or rejected?—Yes, quite so, and our expert advice has been from producers—that is, manufacturers—as well as from outsiders—that is, consumers.

6259. Do you think you have got good advice, as a rule. Have you got reliable experts to help you?—Yes, I think so. There is also the question of how you approach those who are going to exhibit, and I personally have always found that we have done well with them.

6260. Do you think that British methods compare favourably with foreign ones in recent exhibitions?—I think so, on the whole. Do you mean methods for conducting the business of exhibitions?

6261. Yes. We have had evidence that very often the decoration of British courts has been very inferior?—

I think it has been improved at recent exhibitions certainly. In the case of the St. Louis Exhibition I think there was a definite improvement upon the Paris Exhibition of 1900. In the Paris Exhibition of 1889 I do not think it was quite so successful, nor so complete as in 1904, St. Louis.

6262. In 1889 there was not a Royal Commission, I think?—The Government found the money.

6263. (*Mr. Algernon Law.*) Not in 1889; it was a private effort on the part of the Lord Mayor of London?—Sir Henry Wood, who was the secretary of the Society of Arts, managed the Exhibition in 1889 in Paris.

6264. Lord Salisbury refused to participate, although he did not object to its being done by private enterprize, his reason being that it was celebrating the centenary of the French Revolution?—I was not aware of that.

6265. (*Chairman.*) You did not take part in that, did you?—I did not.

6266. Then we need not trouble you about the 1889 Exhibition. As regards the decoration of the courts, do you think that our methods have been inferior to those of, say, France or Germany, or the United States?—I think in many respects they have been inferior to the French methods. In France you have such a different condition of things. There they have a definite standard of taste, and in England we have not.

6267. Have you seen most of the recent exhibitions; for instance, were you at St. Louis in 1904?—No, I could not go to St. Louis.

6268. Were you in Paris in 1900?—Yes, I was; I went over there two or three times.

6269. How did that exhibition strike you in regard to the position of this country as compared with others?—I thought it had a rather mean appearance. It was poor. There was a great deal of animosity against England at that time. I had promises in October from big firms to exhibit musical instruments, which I was looking after for the Commission, and we should have made a very good show indeed, but they all dropped out at the last moment. Messrs. ——, for instance, retired in January, and put us rather into a hole, as we had no exhibitors then to take their place. In the case of books, it was, thanks to having Sir Edward Maunde Thompson and Mr. Frederic Macmillan, who, with the Publishers' Association, worked with us, that we made really a very good representation of printed books. It was a small exhibit, and would almost have gone into this room, but as an object lesson it was infinitely superior to a lot of miscellaneous cases of the same kind of things, duplicating and overlapping one another. As a treatment of fine typography and chosen books it was very good, though comparatively small.

6270. Did you have much experience of the organisation there of the Royal Commission, and of how much exhibitors were helped by them?—I did not.

6271. Were your exhibits taken care of for you?—I arranged that all my collections should be packed and carried over in our vans from South Kensington; the Commissioners paid the expenses, and I was left a free hand to pull the ropes, and we got the things over in good time. I said they should be through at a certain time, and I met the men in charge of them, and the goods were there up to date.

6272. You did not hear of complaints from private exhibitors as to the arrangements, did you?—No; but I can quite imagine that unless somebody was on the spot looking after all these things there might be complaints. For instance, I was kept in Paris two days because the red vans had not been allowed to pass through immediately into the Exhibition grounds, but I soon arranged with the officers of our Commission to get them passed through.

6273. Into the Exhibition, do you mean?—Yes.

6274. Do you think that a Royal Commission is the best method of organising an exhibition, or do you prefer the London Chamber of Commerce, or the Society of Arts, or any body of that sort?—I think that a Royal Commission appointed for each exhibition is the better way. I think it gives a better official standing to the undertaking. Of course, with a Royal Commission you should be able to get money more easily, and money is necessary to push such an undertaking along with proper certainty and expedition.

6275. Do you see any advantage in having a small permanent organisation to continue the traditions and knowledge from exhibition to exhibition?—I think it is doubtful whether it would be an advantage, because important exhibitions cannot very often occur. I should think that the occasional commission would be quite sufficient if it is appointed in time. But when an announcement from a foreign country comes in, and the announcement is delayed, wherever it may be, in the Foreign Office or anywhere else, and then is sent on to somebody for an opinion, and the thing does not get settled, that delay is, I think, very dangerous. When the announcement comes, somebody in authority should be able to say promptly "Yes, *coûte que coûte*, we will exhibit as a country."

6276. But who is to be the authority to say that we ought to take part in any exhibition?—That is a political matter.

6277. There are political reasons, but then, surely, there are also commercial reasons?—Quite so.

6278. It is a question of fact very often—"Is this going to be an important commercial exhibition"?—Yes, it is.

6279. Do you not see an advantage in having some committee or some body to look into the thing and decide at as early a date as possible whether this country should take part?—Do you mean a standing committee?

6280. Either a standing committee or a committee on the French system. Do you know anything about the French Comité?—No.

6281. There is a German committee also which has just started; but apparently you do not know about those systems?—No, I do not. A small committee, of, say, the Board of Trade, the Treasury, and the Foreign Office, could, I should say, at once settle the point. I think time is everything in working these things.

6282. You agree that it is most important that the Government should make up their minds in time as to whether they should take part in an exhibition?—Certainly; and also as soon as they have made up their minds there should not be any unnecessary haggling about money. If the Government make up their minds to take part in an exhibition the money in sufficient quantity should be forthcoming.

6283. Of course, for that the Treasury would want rather a weighty expression of opinion from the departments or from some body?—Or from the Minister, saying that the country is to take part in the exhibition. I think it is as much a political as a commercial movement. If it is to be a commercial movement purely, and on a commercial basis only, then I am very doubtful whether the Government ought to take the lead; all that the Government then should do would be to announce the exhibition, and say, "Now, then, private enterprise, do what you think right."

6284. Would you leave the matter entirely to commercial enterprise, or would you say to our manufacturers, "We will give you the organisation; but if you do not care to take part in this thing, and to pay all the expenses, the Government will not do it"?—No; because then you bring in the political side.

6285. And you think the political side is very important?—I do think so. Take the Paris Exhibition of 1900, where you had a distinct show of feeling against the exhibition on the part of the British manufacturers; the Government nevertheless pushed it through, and Sir Herbert Jekyll got up the St. George's House, for instance, at very considerable expense. Within my experience, nothing of that kind had ever been done before; it was splendidly done, beautifully fitted up, and at a very great expense. But it was, to my mind, purely a political show.

6286. Do you think as regards that pavilion that it was worth the large cost?—I am very doubtful—I think it was a kind of attractive side show: but it was not definite with intention to bear fruit of commercial importance. With great deference, I do not think it was as useful as my little show of lace and embroidery and other textiles at St. Louis. The lace, embroidery, velvet and silk producers were in a way definitely affected by my little show.

6287. Your lace and embroidery were really representative of industries of this country?—Yes, as far as we could do it within the time; but we had only five months to do it in.

6288. It represented Nottingham thoroughly, I suppose?—Yes, within the limits of space Nottingham lace making was as well represented as it has ever been. We got all the best people from Nottingham repre-

sented, notwithstanding that you could have packed up the whole of the exhibit into a big parcel. When spaced out there it represented all the different types of design, the different kinds of textures, and so on, that were current then.

6289. About the arrangement of exhibits, do you favour a national arrangement or a class arrangement? Take your own lace; would you sooner have had the British lace close to the laces of other countries, or would you have the whole of the British exhibits by themselves?—If you could get it by class, I would sooner have it by class; then the object lesson becomes even stronger than before.

6290. (*Sir Isidore Spielmann.*) In forming these collective exhibits, you have usually acted alone, have you not, without the assistance of a committee?—No, I have always had committees.

6291. There has been a committee, but it has been left to you to procure the exhibitors, which you yourself would recommend?—No, the committees, as far as possible, have helped me in getting exhibits. Where a committee has failed me, or where I have had space to fill on account of exhibitors failing at the last moment, and the thing comes to a pinch, I have done the best I can to fill it up; but the basis of the collections rested on the advice of committees. For instance, in the case of the show of the School of Art works in 1900, that was done absolutely under a committee of the highest experts in the land. We had the best people to select these School of Art works—Royal Academicians and other distinguished Artists, Designers, and Craftsmen.

6292. To which exhibition are you alluding?—The Paris Exhibition of 1900.

6293. Are you referring to the Art section?—I am referring to the School of Art exhibit, which was a very important educational exhibit in 1900, and which was done by the Board of Education. I happened to be the executive officer to look after it.

6294. I was referring more particularly to the exhibit of lace which you formed at the St. Louis Exhibition; that was a collective exhibit of lace, embroideries, velvets and silks?—Yes, of artistic textiles generally.

6295. Did you not form that alone?—No. Whether it was more for the show of the thing or not I do not know, but it was done in a horrible hurry, and I was asked whether I could undertake it. I said, "I will do the best I can, if you will find the money." But we formed a committee, and you will find the names of that committee printed in the report of the Commissioners on the Exhibition.

6296. I was under the impression that it was quite a large exhibit of very fine quality, and was a very important court; that you had the entire control of that exhibit, and that you procured those exhibits yourself. Was that not so?—Yes, but with the advice that I could get from a committee of ladies, I think; and others who came in. I derived advice and direction from those whom I believed to be experts, and then did afterwards the best I could.

6297. Did you or the committee procure the exhibitors?—I did, certainly—on their advice.

6298. (*Chairman.*) You called your committee together, I suppose?—Yes; but, as I say, the thing was done in rather a hugger-mugger way, and in a hurry. I think I was invited to serve on the committee about June; I forget who it was, but I think it was Lord Castletown, invited me, and said, "Could we not have a show of lace and could we not have a show of embroidery?" I said, "Of course you can; but the time is short and you will have to pay, and we should build a court for it."

6299. (*Sir Isidore Spielmann.*) What I want you to tell the Committee is, how you go to work in forming a collective exhibit of that kind?—I think the way we went to work for the St. Louis Exhibition of 1904, although it was a success, was not the best way to go to work. The time was too short, and I had far too much thrown on my shoulders; being engaged more in educational than in other work, I disliked it enormously, but I had a dash for it, and I did the best I could. In the case of the Paris Exhibition in 1900, where there was more deliberation and consultation, I was able to organise more deliberately.

6300. But the result at the St. Louis Exhibition was good, was it not?—Yes, the result, thanks to Providence, was good. It was rather a fluke; I did the best I could.

6301. You brought in the best class of exhibitors?—Yes.

6302. And they got the highest awards, I think?—Yes, certainly.

6303. Do you remember the nature of the awards you took?—No. I did not take any interest in the awards at all, and I do not know what the awards were, but I know that almost all the exhibitors were very well satisfied. I think that I personally had a big engraved certificate—I forget what.

6304. (*Chairman.*) Was it a *diplôme d'honneur*?—Perhaps it was, but I do not know. Then I got a kind of little metal shield, but I forget what they called that.

6305. (*Sir Isidore Spielmann.*) Each exhibitor taking part in the collective exhibit received the same award, did he not?—Yes, I know that. For instance, the Irish Convents sent up some extraordinarily fine specimens of Irish lace, and they were very well pleased indeed with the medals they got.

6306. In endeavouring to get exhibitors in did you find that many of them objected to participating in a collective exhibit?—No.

6307. They did not refuse owing to any objection to the new method of exhibiting collectively?—No. The most important people I went to were Messrs ——, of Nottingham, and half a dozen less important producers. They were extremely courteous, and they did everything that I asked them. I said: "All we want is a selection of your best goods; something that I can take away in a portmanteau, if you like, or something that you can send up in a small package — that is really all we want. They assented to it, and provided us with a very excellent representative collection of all branches of Nottingham lace work.

6308. Do the firms in that industry attach great importance to awards?—I do not know. Such a firm as Messrs. —— probably commands the trade of the world in that kind of thing; they might not mind having another *diplôme d'honneur*, but I do not think they would attach much importance to it.

6309. Do they publish the fact as a trade advertisement?—I should doubt it, but I really do not know enough about it to answer. The firm I have in my mind I should say are quite at the top of the whole business; they are like Whitworths and Armstrongs in the munitions of war business. I do not know whether Whitworths and Armstrongs publish their gold medals and their *diplômes d'honneur* and so on, but they are in the same kind of position as the Nottingham firm I am alluding to. I think possibly that ——, of Macclesfield, who helped me with the silk, is not quite so big: still he perhaps was not unpleased to have a medal. Possibly he might publish it; but he is an important man in his trade, and I would not like to say.

6310. Are you personally in favour of collective exhibits from the experience you have had of them?—Certainly, and especially such collective exhibits as one sees organised in the French exhibitions, where you get the grouping together of all sorts of silks, for instance. I do not know whether there is a Chamber of Commerce for silk in France or not; but with the French you do get complete and attractive courts, say, of silk or costumes or furniture, and so on.

6311. (*Mr. Harris.*) I think your view of exhibitions is broadly that they are rather political and educational than anything else; is that so?—I think that is my view.

6312. You have been connected with these exhibitions rather as representing a Government exhibit, have you not?—Yes; as representing the administrative side rather than the commercial side.

6313. Would you, please, to explain the word "administrative"; am I right in thinking that by "administrative" you mean that which is put forward by the Government on behalf of the nation as representing a section of the work of the nation?—That which is put forward by my employers as being desirable.

6314. Your employers being?—The Royal Commission or the Government. The nation, of course, would include producers.

6315. Taking your exhibit at Paris in 1900 of lace and embroidery, which you evidently thought very good ——?—In Paris in 1900 it was not lace and em-

broidery; it was Schools of Art, scientific instruments, photography, books, and those kinds of things.

6316. Typography and so on?—Yes.

6317. Was the lace and embroidery that you spoke of just after referring to the British pavilion at Paris shown at the St. Louis Exhibition?—Yes.

6318. So that you had no exhibit in the British pavilion at Paris?—Not in the British pavilion; but in the British section.

6319. Postulating that the educational effect is what you look to, do you think that you get a better educational effect in your section with your little exhibit of books, and so forth, than we got as a nation from the British pavilion as a whole—I am on Paris now?—I am almost inclined to think that my collection of books, which was educational for the trade—for the consumer and for the producer—was a better business than the pavilion. I understand that in Paris the paintings, ancient and modern, were represented in the Grand Palais or in the Petit Palais. There was a British modern section in the Fine Arts division in the Grand Palais, and I believe in the Petit Palais there was ancient art. So far as the pavilion went, of course, it was a very beautiful thing and a very charming thing; but for educational effect and for the purpose of comparison I should have said that the things in it might possibly—I do not know, perhaps it was not possible—have been placed respectively in the Grand Palais and the Petit Palais. Had it been so, you then would have seen Gainsborough and Reynolds side by side with, say, Hyacinthe Rigaud, Greuze, and other such foreign portrait painters.

6320. You are coming back now to the idea of arrangement by section?—Yes; but do you not see my point here is that the special pavilion was in a way a duplication of what was being done elsewhere.

6321. Did that duplication include your own subjects? I am just now trying to contrast the pavilion with your own particular show?—My own particular show stood alone for England. The pavilion which contained works of ancient and modern art, I should say, rather duplicated what was being done elsewhere for England.

6322. In one of your remarks about your particular show just now I think you said it had more effect upon the producer than on anybody else; now you are leaving, are you not, the educational side?—Yes.

6323. And you are indicating an effect on the commercial side?—Yes.

6324. So that at the back of your mind, I think, you have an idea that the test of its value as an exhibit is the commercial side; or am I wrong?—The test of the value is educational to a very large extent, I think, and the value of the educational test comes out commercially perhaps. But there again, do you not see that if an exhibition rests on a purely commercial basis it is for the people engaged in commerce to do it? In the case of this Paris Exhibition it was because the people engaged in commerce would not do it that the Royal Commission decided to do it; and having done that, I think that our show was as good educationally, industrially, and commercially as it could be under the circumstances.

6325. Now I go back to your attempt to get up a collective exhibit for Nottingham. In a recent answer you indicated to Sir Isidore Spielmann that you got the very best men at Nottingham to help you; but do you think that you covered the whole ground at Nottingham sufficiently? Were there not people who might have said to you, "After all, we ought to have had a chance to go in." You seem to have only gone to the men you know; was that so?—No, I did not know them. I went to the men that I was recommended to go to by two well-known authorities in the lace business. Besides them Lord Henry Bentinck, then member for Nottingham, kindly gave me a letter of introduction to his agent, who took me round. He said, "Now, these are the people that I believe are the biggest people." He is not in the trade. I merely went round, and they were very courteous. They allowed me to go into their sample rooms. I said, "I think *that* kind of thing and *that* will do," and they said, "Yes, but in addition we would like to send *that*." I said, "All right." I went into some rooms, and I thanked them very much, but I said, "This seems to be covered by so-and-so." "Oh, yes, it is, because he supplies us; he is a manufacturer, and we are only middlemen in respect to those goods." Then in the case of still bigger people I said, "I have got fancy work from so-and-so"; they said, "Well, you could not do better." I said, "How about so-and-so"; they said, "We supply him, although he calls himself a manufacturer." You see, it is a question of negotiating the situation.

6326. So that, in fact, you feel you did cover the whole of the trade of Nottingham?—Yes.

6327. (*Chairman.*) Do you think that all the lace you got was Nottingham lace, not continental lace?—It was all Nottingham lace.

6328. It might have been otherwise, for you can see any amount of continental stuff there, as they are merchants as well as manufacturers?—I know.

6329. And occasionally when they get an order they make up parcels with stuff they get from the Germans—Plauen lace, and all the rest of it?—There was no Plauen work there, and no St. Gall.

6330. (*Mr. Harris.*) What I want to get at is whether you felt satisfied that you really got a representative exhibit in that case?—Yes, I did.

6331. That, I take it, is what you aim at always in similar cases?—Yes, in similar circumstances. If I had had much more time—instead of having only four months and being otherwise very much engaged; if I had had a margin of twelve months; I should have set to work in a very different way. I should have gone to Messrs. —— and ——, and I should have tried to have found out the others, and have consulted all, and seen how far they would co-operate amongst themselves to make the show. Then if I found that they would co-operate sufficiently amongst themselves I would not have formed a special collection, but they would. I should always strive for a representative collection rather than for a collection of miscellaneous exhibitors.

6332. Going to the merchants like that, to get up a collective exhibit—if you had said to them, "The Government will give all the facilities, and the Government will look after the matter, but you must pay all the expenses—do you think they would have entered into it, or do you think they would have looked for money help?—I do not quite understand.

6333. If you were to go to these people and say, "Now the Government will arrange this for you, and they will give you the whole benefit of the administration right through"—?—What is the meaning of "administration"?

6334. I mean taking care of exhibits; seeing to the proper packing; then taking them across, we will say, to Paris, and guarding them there, etc., etc. Do you think that then you could get all the expenses paid by the exhibitors?—Do you think that you could confine the expenses of the Government simply to administration, to looking after things, leaving the exhibitor to take the transport and other expenses?—I do not know. I should think in some cases young exhibitors who had never tried exhibitions before would probably be very glad to accept those terms and to pay their own transport expenses, but the old exhibitors who give the lead to the trade would probably say, "No, we do not care to have anything to do with it. On the other hand, if you offer us great facilities we will let you have goods to show."

6335. Still taking the question of Government administration—you indicated to the Chairman that you are doubtful whether you want a permanent nucleus of a Commission; have you not heard that it has been a grumble that when a Royal Commission sets to work they have had great delay in finding books and precedents, and so forth?—I have not heard that, and I am very surprised to hear it. I should have thought there was a sufficient mass of official literature for anybody who has got anything to do with exhibitions to turn to and consult, but I may be quite wrong.

6336. You attach great importance to the matter of time?—Yes.

6237. Have you heard of the complaint, which before this Committee has been very general, that a Royal Commission flounders about and loses a lot of time before it gets to work?—No, I have not heard that.

6238. On the whole, then, you are satisfied that things move fast enough and are pretty well done under the present arrangements?—You get your Commission established, but of course if the head of the Commission goes to sleep and does not take early active steps, the whole thing fails. If you have got a man of brains at the head of it, or as the secretary of it, he has got

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his machine, and it is his object to make it work successfully.

6339. Do you mind explaining what you meant by "haggling over money"—you used that phrase?—I was thinking of difficulties which occurred as long ago as 1867, which may perhaps not recur ever again. I remember my father drew up an estimate for the cost of the English Commission in Paris amounting to £128,000, which was to include a lot of exhibits from different Government offices, and so on. Then there was haggling as to whether each separate Government Department should pay for its own exhibit, although, mind, it all came out of the same purse, or whether the Commission should do it. In the upshot the Treasury said "No, we can only give you £116,000 instead of £128,000." That decision was arrived at in the February of the year of the exhibition. That was rather pinching to anybody who had got a great deal of work to do within limits of time.

6340. Yet you do not think that that would have been obviated by having a permanent body whose business would have been to proportion the grants at once—that is what I am driving at?—I do not think so. As soon as we had undertaken to take part in the exhibition, which we did as early as 1865 I think, if it had then been stated definitely "We are going to take part in this exhibition, and as a grant towards something better, if necessary, we will give you a preliminary £50,000, £70,000, or whatever it might be," things would have been made more easy.

6341. And in the long run that would have helped you to save money?—We might have saved money. The Imperial Commission introduced new views into the organisation of their exhibition, and, for instance, they tried to make English exhibitors pay for their space.

6342. Does that at all alter the opinion you expressed to the Chairman as to a permanent body or not?—No, I do not think so. Perhaps I may take too circumscribed, too red-tapey a view of the thing. Say that an announcement comes in through an Ambassador to the Foreign Office. Some clerk in the Foreign Office gets the dispatch and loses no time in asking Mr. —— of the Board of Trade, and Mr. —— of the Treasury about it; then the three Mr's. —— sit down together, and say, "Here is this dispatch; now what is our recommendation?" If those three gentlemen recommend the Minister—the Foreign Minister, if you like, or the Premier—"We think this is all nonsense; we do not see any life in this at all; we do not think this exhibition ought to take place," and they give their reasons, the Minister may say, "All right, we will knock this on the head, and will not have anything more to do with it." On the other hand, if they say, "This is really a big show, and we ought as a nation to go into it, and we have done the same kind of thing before," then the Minister may say "Yes" or "No," and will be prepared to face Parliament and get the money.

6343. Have you not come down to a nucleus of a sort of standing committee for exhibitions?—Yes, in a way; but I would not keep up a standing organisation to watch for announcements of exhibitions.

6344. Forgive me for pressing you on the point, as I want to bring that out?—I entirely go with you, as you suggest, that there should be some intelligent collection of exhibition literature—reports, files of forms that have been made.

6345. (*Mr. Algernon Law.*) In the case of the Nottingham collective exhibit, did the firms pay any of the expenses?—No, none.

6346. Were the names of individual exhibitors given in the collective exhibit?—Not in the case of the fancy laces of Nottingham. In that case the manufacturers asked me, I think, to keep their names out, because they would prefer it to appear as the Nottingham collective exhibit.

6347. Was that on account of their agents? Did the agents in France object to their giving their names?—I do not know, and I could not say what was the reason for it; but in regard to the fancy laces they did ask me to have the exhibit marked as the Nottingham collective show.

6348. You said, I think, "In my own rather little exhibition. I should say the British makers of various things, textiles," and so on, by which, I suppose, you mean art fabrics?—I meant anything of that kind depending upon decoration.

6349. Not the ordinary cottons and woollens?—No.

6350. How often do you think we should take part in exhibitions?—I should think comparatively rarely.

6351. What term of years would you say? Would five years be too often, or twenty? How long an interval would you suggest, so as to show the progress of the nation and also to meet the convenience of those people who do not want to take part in exhibitions too often, because of the trouble it involves?—I should think ten years is about the time.

6352. While you were over in Paris did you hear any complaints against the British management, as, for instance, that there were not enough people about to look after the exhibits and attend to the wants of the exhibitors?—No. I was only over there on each occasion for two or three days, and I had my own staff to see to what had to be done in the way of unpacking and organising.

6353. You did not hear anything from your own staff about that, did you? I suppose you were rather apart from the ordinary commercial exhibitors?—Yes. I went over and saw Colonel Jekyll or Mr. Lloyd or somebody, and I got the help that I wanted almost at once.

6354. Did you have somebody representing you at St. Louis?—Yes. There the Commission agreed to pay a young man who had had some experience in arranging things, and he carried out all the arrangements as we laid them down here. We plotted out the whole thing on a plan, and he carried that out. I believe it was carried out all right, but I was not over there. They made photographs of the exhibit, and it looks fairly well in the illustrated record of the exhibition.

6355. Apart from the political side, I mean to say apart from pleasing a foreign Government by exhibiting, do you attach importance where there is a great exhibition to there being a fully representative exhibition or participation of all our industries to show what our country is doing? I understand you do?—Yes.

6356. You do not think it is sufficient to show our progress in art?—Take munitions of war. If you get Whitworths and Armstrongs and those kind of people saying "No, we do not show," I should not press them very much to show; but in the case of furniture and in the case of textiles, decorative and undecorative, I should.

6357. What about machinery?—That is a very difficult question. It is very costly to exhibit machinery. If the trade do not care to show their machines, and if they do not want to get them on to the Continent, I do not think that there is much use in pressing them.

6358. Would you say the same if there were foreigners showing who were assisted by their Governments?—In that case I think we ought to do the best we can, certainly.

6359. (*Chairman.*) About lace, did you hear any objection raised by manufacturers to showing the very latest patterns? Were they afraid of their patterns being copied, or of getting on the market and being imitated?—No, I do not think so. I was not able to get one or two specimens that I wanted because they were new, and, of course, that does indicate what you say; but it was very limited indeed.

6360. We have been told as regards textiles that that would be an objection. Take the woollen and worsted dress fabrics of Yorkshire, we have been told that people would not like to show their patterns for the next season—they are always about half a year in advance, you know—for fear of the market being spoilt and of their patterns being imitated?—I can understand that that might be so, but the variation in pattern between one season and another is very slight.

6361. In dress goods?—Yes, in dress goods.

6362. Is it?—It is very slight, I think. If you take a lapse of years—five years, for instance, you can see a change, but it is very difficult, I should say, except for the highest expert, to see a change between six months and six months.

6363. It would be between this spring and last spring, would it not; but you do not consider there would be a good deal of change?—Take this instance: There was a good number of printed crêpes that we got, I think, from Essex or Norfolk for the St. Louis Exhibition; there were two firms that gave the stuffs for them. I think those things to some considerable extent are in fashion now and in demand.

6364. Yes, crêpes would be?—Those things that were exhibited I had not noticed myself in the shops, and when I showed them to my wife and daughters I found they had not noticed them to any extent. They said "Yes, this is rather nice, and it is something rather new." But even now these crêpes are certainly not played out.

6365. Do you not think there is a great change going on in connection with prints; are there not new patterns continually in those?—I do not think there is such a great change. Of course, if you were to check it at intervals of five years or more, you would detect decided changes.

6366. Talking of Nottingham, you never mentioned the Nottingham Chamber of Commerce; were they of any use to you, or did you not apply to them?—I forget now. I think I saw somebody from the Nottingham Chamber of Commerce, but they did not give me any assistance that I can remember.

6367. You seem to have been doing their work a good deal in getting up a Nottingham collective exhibit?—If Chambers of Commerce are to do that kind of work, then I certainly did their work.

6368. Did you ask them for help and not get it, or did you see nothing of them?—I do not remember whether Sir Charles Watson wrote to the Chamber of Commerce or not. I think the Commission had taken all the steps they could before I came in.

6369. (*Sir Isidore Spielmann.*) We have been told by witnesses that agents prevent their manufacturers from exhibiting, as they do not like the manufacturer to come forward as the exhibitor. Have you had any experience in that way? Have any manufacturers told you they are not permitted to exhibit owing to their arrangements with their agents?—I have heard of it, but I cannot recall any particular instance myself. In the case of the Nottingham exhibit, the manufacturers there said "Don't put our names on; make it a collective display from Nottingham."

6370. So that you actually included exhibits without being able to expose the name of the manufacturer?—Yes. It was a collective exhibit from Nottingham. That was in the case of the fancy goods.

6371. How did the manufacturer get the award?—He did not care about it; he was so well off that he did not care about it. He was pleased to take part in the collective show, and he did not get an award. I could have carried the Nottingham lace exhibit under my arm. About eight different manufacturers agreed to give me specimens of lace, and they said, "We do not very much want our names to appear in this," because possibly 24 bits of lace would not represent Messrs. So-and-so according to their estimation, or Messrs. So-and-so; therefore they said, "Put it all together in one lot, and exhibit it as a collection of fancy laces from Nottingham." I said, "All right, that will answer my purpose, and we will do it." In the case of Macclesfield, it was otherwise. In the case of a lot of cotton prints from somewhere near Manchester—I forget now where—the producer's name appeared. In the case of Messrs. ——, who are partly manufacturers and partly middlemen, they gave their name.

6372. Do you know of any cases where the manufacturer supplied the exhibit and where the award went to the agent?—No. In the case of the lace shown by individual exhibitors the prizes went to them direct.

6373. When the manufacturer was known?—Yes, when the manufacturer was known. *Mr. A. S. Cole, C.B.* 16 May 1907

6374. But you said in some cases you had to suppress the name?—It was in the case of the collection of Nottingham laces that I suppressed the names. If you will turn to your illustrated catalogue, you will find that prizes went to individuals, such as workers in villages in Ireland, who were employed by a particular convent or a particular lady patroness from a centre, and so on. The same with the Devonshire lace; you will find workers employed under Miss Trevelyan got prizes, as well as Miss Trevelyan herself, who designed and managed the production of her own exhibits.

6375. (*Mr. Wilson Fox.*) With regard to the British lace exhibit at St. Louis, did you hear at all whether it attracted any attention?—No, I did not hear that. I did not go to St. Louis myself.

6376. I was wanting to learn how far it was worth while sending the lace exhibit out there?—It was in a way worth doing.

6377. I want to know, looking at it from the commercial side, whether it attracted any attention?—I am not sure whether it gave any sort of fillip to crochet work, but I think I heard something about it. You see the tariffs in America are absolutely against anything of that kind.

6378. If people are attracted to a thing like lace, which is fancy work, they are very often ready to pay for it without minding the tariff, are they not?—Yes; only when you have got a tariff of 75 per cent. against you, the ordinary consumer does not care to run to that.

6379. I am now talking ignorantly on this point, but have the Americans got any lace factories, I mean is there a home industry in lace there?—No, I think not.

6380. So they are bound to buy outside?—Yes, they are, and therefore the consumption is limited to the very wealthy.

6381. I was only on the point as to how far the lace exhibit might have been attractive?—Of course, wealthy people will pay anything you like, but the lace exhibit did not necessarily open up the possibilities for big consumption. In the case of lace curtains, for instance, I think a big English firm have started lace-making works over in America so as to avoid the duties, and in the same way they have started lace-making works in Russia because of cheapness of labour, and so on.

6382. You did not find the Nottingham Chamber of Commerce very helpful, I gather?—I never realised what a Chamber of Commerce was, and I do not know anything about it. As I had to get my work through as quickly as I could, I went direct to people who I believed could help at once; but I did meet somebody who was connected with the Chamber of Commerce, and I think they told me they did not think much of the proposal to exhibit, and were not going into it, so I said, "Very well, then, that clears the ground."

6383. And then you had to go to the individuals?—Then I went straight to the individuals.

6385. Of course, that was much more trouble to you?—Yes. It was a nuisance, because I had to squeeze it in between my regular official work.

Mr. Henry Tomson Milward, called and examined.

6385. (*Chairman.*) You are a member of the firm of Henry Milward and Sons, Limited, of Redditch, I believe?—Yes. *Mr. H. T. Milward.*

6386. Your firm has exhibited at a good many international exhibitions, has it not?—Yes; it has exhibited at all the international exhibitions up to the last exhibition in Paris, except the first one or two.

6387. But you were not at St. Louis or Chicago?—No, we were not at those.

6388. You exhibited needles, fish hooks and fishing tackle?—Yes.

6389. But the actual value of the goods has been small, although the cost of your exhibit has been from £400 to £800?—Yes.

6390. Have you had any increase of business with foreign countries that you can attribute to exhibiting your goods in this way?—Not from the later exhibitions, I think; indeed, I am quite sure that the expenditure at the last Paris Exhibition was entirely thrown away.

6391. Would you put that down to there being more competition abroad?—No, not at all. At that exhibition there were hardly any exhibits by other manufacturers. The German makers, who are our greatest competitors, were hardly represented at all. The only foreign manufacturer who was represented was the firm of Bohin. He was the only French needlemaker there, and he had an exhibit on the ground floor with machinery at work. What I attributed the failure of our exhibit to was the fact that we were skied up in a gallery. That was an enormous exhibition, and pro-

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bably nine-tenths of the people who visited it did not have time to go round the ground floor, and of course hardly any people had time to go over the gallery, or they could only race through it if they did.

6392. I suppose there is more competition in fishing tackle on the Continent than there was?—Rather more, but not much more.

6393. Is the present competition in fishing tackle in Belgium severe?—There is not any worth mentioning with goods of the qualities we make.

6394. Do you know that? The last time I was in a Belgian prison—that was on behalf of the British Government, some years ago—I found that they were making fishing tackle because it was not made outside in the country, and that they were making it for the purpose of competing with Nottingham tackle and yours?—There is not much competition. There are one or two people, perhaps three or four, who are making fishing tackle of the very cheap kind; that is, what they call the *roseau* fishing rods, reed fishing rods. They make these very largely, and they also tie the hooks on gut and horsehair, but they buy the hooks in one country and the gut in another—Spain. There is none of the more expensive tackle made in that country.

6395. Have you ever experienced any disadvantage from exhibiting from having your goods copied?—No, I cannot say that we have, to my knowledge.

6396. I have no doubt you have had plenty of awards at exhibitions, in the shape of medals, and so on?—Yes.

6397. Do you attach any importance to them?—Not now.

6398. Has there been a change in that respect then?—I think formerly a good deal more importance was attached to awards than there is now. I do not believe people think very much of having so many medals.

6399. Is it that people now trust to themselves more in buying what they think is good?—I think in many cases the names of those manufacturers who have been before the public for a great many years are well known.

6400. They buy from your name, I suppose, now?—Yes, largely.

6401. Have you ever bought goods that have been useful to you because you have seen them at exhibitions, or, in the same way, have you ever bought machinery for use in your manufacture?—The only instance I can recall of that kind is the one that I mention in my heads of evidence.

6402. That was a small mechanic who, you say, proved of considerable service to you for a good many years (until his death) as a designer and maker of some of the delicate machinery you use?—Yes. Our industry is a small one, it is confined to practically one place in the United Kingdom, as far as needles and fishing hooks are concerned, and one does not find that exhibits of general machinery are of much use to the Redditch trade, as a rule. Our difficulty is to find makers who are willing to bother themselves with the smaller machines we want.

6403. You send goods abroad a good deal, do you not?—Yes, a great deal.

6404. Do you send them to America?—Yes.

6405. But you did not think it worth while to exhibit at St. Louis or Chicago?—No; our agents thought it was useless to do so.

6406. You do your business through agents in America, then?—Yes.

6407. I think you have already told us that since the Paris Exhibition of 1900 you have thought it rather a waste of money to exhibit?—Yes.

6408. Is that partly because your goods do not make a big show?—No, but because at that exhibition we were so badly placed, also because in so large an exhibition visitors have no time or inclination to examine an exhibit of needles or fishhooks.

6409. It is because of your experience of Paris then; is that it?—Yes, partly. These large exhibitions seem to have got to such exaggerated dimensions now.

6410. Was it the fault, do you think, of the people who organised the British section and who allotted the space, and so on, that you were skied and put into some out of the way place? Could it have been avoided?—I do not think it could. I think the probability is that our goods being very light were put up in the gallery because the gallery was suitable for them. Of course there must have been a great demand for the floor space for the very heavy exhibits.

6411. Have you ever thought whether you could get over that in any way by collective exhibits?—We had one then. That was a collective exhibit of four Redditch manufacturers.

6412. Yet you were not in a conspicuous place?—No, we were not. It was all right so far as it went; we had plenty of room round us, and we were not in a row with a lot of other exhibits; but then nobody went to the gallery.

6413. Was that arranged nationally—that is to say, among the other British exhibits?—No, I think not, as I believe that the idea of the Paris Exhibition was the classification of goods by classes, not by countries.

6414. Have you ever thought of that? Would you be in favour of having the exhibits of the different countries in the same class put together? Would you like to stand in competition with German needles and fish hooks and fishing tackle?—I do not think we should care. If we made up our minds to exhibit, we should not see any objection personally to that at all.

6415. Do you attach importance to British manufacturers being represented at exhibitions—independently of your own business point of view?—Yes; I think Great Britain ought to make a good show. After all, exhibitions are advertisements, are they not, although we have not personally found them any use to us lately?

6416. In your answer to our ninth question, you speak about the labour of preparing an exhibit, especially when you are very busy. I hope that means that when you did not exhibit you had plenty of work in hand and could not spare the time?—It did not mean only that on those occasions. The reason we did not exhibit at the last exhibitions was because we thought it would be money thrown away to a certain extent; but at the same time it would have been inconvenient. Just now I should be very sorry to have to prepare for an exhibition.

6417. Why?—Because the whole of our trade at Redditch is exceedingly busy.

6418. Is that a good deal due to the prosperity of the textile trades?—It seems to be due to the general prosperity.

6419. Do you have to pay a high duty on needles in America?—No, there is no duty on hand-sewing needles.

6420. No duty at all?—Not now; there used to be a few years ago.

6421. Are you sure?—Yes; the duty was taken off at the last revision, I think.

6422. Are needles supposed to be raw materials?—I do not know. There is no needle industry there, that is to say there is no hand needle making. There is a large business there in making sewing-machine needles. Fishing-tackle pays a duty. But in regard to needles, the cases pay a duty and the needles do not. When we send needle cases over there, we have to send the needles just stuck in paper separately, and the cases separately, so that the needles may pass through the Customs without paying duty, and then they are put into the cases by our friends on the other side.

6423. And you think your freedom from duty in the case of needles is because there is no industry out there that would seek to get a protective duty put on?—That is the reason no doubt.

6424. Is it the case in other foreign countries that your needles are admitted free of duty?—No.

6425. In your principal markets, I mean?—There is no duty on needles in Australia now, but there is of course a considerable duty in Germany.

6426. Because they have a very large needle industry there?—Yes, and there is also a duty in France, where there are two competitors, I think, if not more. There is a small duty in Belgium and in Holland.

6427. I gather that you would like this country to be represented at international exhibitions, though you would not personally wish to take part in them if you were busy, unless you saw your way to make a profit out of it?—That is so. It sounds rather a selfish view, but then of course we have done a good deal in the way of exhibiting in the past. We have exhibited at at least 20 international exhibitions, which is really a good deal, I think

6428. Are there minor firms and younger firms in your trade who exhibit?—There are three or four other firms, and there is the firm of Allcock, makers of fishing tackle, who exhibit pretty steadily at exhibitions; they have exhibited lately, I know.

6429. I should like to have your observations about the organisation of these exhibitions, so far as you have had anything to do with them. The last one you exhibited at was Paris, in 1900; have you anything to say about the British Commission there?—No, I cannot say that I have.

6430. You formed part of a collective exhibit?—Yes.

6431. And you sent somebody over with that?—Yes.

6432. They found the space already allotted to them?—Yes.

6433. And they fixed the exhibit up?—Yes.

6434. This collective exhibit did not take up a great amount of space, I suppose?—No. I should think it occupied a space similar to the square covered by the tables here.

6435. Did you go over there yourself?—Yes, I went over there once.

6436. But you had practically nothing to do with the authorities?—No, nothing whatever. We sent a man over there, and he saw to the erection of it and engaged people to help him. He carried through everything that had to be done, and he was there part of the time. When he left we placed the care of the exhibit in the hands of other agents.

6437. When it came to the juries going round and conferring the awards did you have anybody to represent you and to show your goods to them?—We had this man who was representing us.

6438. Was he an agent?—He acted as agent on that occasion.

6439. He was not one of your own men, was he?—No, but he was a man who had a good deal of connection with our trades.

6440. So he knew something about them?—Yes, he knew a good deal about the goods, although he was not actually in the employ of any of us, except that he did a good deal of the designing of the case.

6441. In your heads of evidence you do not offer to us any observations about the organisation of the British exhibits—that is, whether we should have a Royal Commission or any other body for future exhibitions. I do not know whether you have thought of that at all?—I hardly know what to say about that, because I have had so little to do with Royal Commissions or with the authorities in the past.

6442. Of course you are aware that up to now a separate organisation has been made practically for every exhibition or in view of an exhibition, that body being either a Royal Commission or a committee of the London Chamber of Commerce or the Council of the Society of Arts?—Yes.

6443. Therefore everything has to be done afresh each time. I do not know whether you have formed any opinion as to whether we ought to have some small permanent nucleus, to carry over from exhibition to exhibition the library which has been collected and the methods which have been adopted?—I should think it would be an excellent thing. It would ensure greater continuity, would it not? You would by degrees gather together a great deal of experience in dealing with fresh exhibitions.

6444. Do you belong to a Chamber of Commerce?—I belong to the Birmingham Chamber of Commerce, but I have very little to do with it. We are some little way out of Birmingham, and we do not have very much to do with Birmingham things really.

6445. So perhaps you have not any opinion as to how far Chambers of Commerce are competent to help in arranging collective exhibits?—As far as the Birmingham Chamber is concerned, I should think they would be distinctly competent to help in the matter as a sort of intermediary between the exhibition committee and the manufacturers of the district. They are an active Chamber, and they have a very energetic secretary.

6446. They have different sections, have they not, for hardware, machinery, and so on?—Yes, I believe they have.

6447. (*Mr. Wilson Fox.*) When you have exhibited in the past, who has asked you to exhibit, or have you offered to exhibit?—Very often we have ourselves offered to exhibit, and we have sometimes received printed circulars from the exhibition authorities.

6448. You have made the offer to the authority—the Royal Commission, or whatever it may be—to send your goods to the exhibition?—Yes, in many cases.

6449. Then it has rather come from your own initiative than from theirs?—I could hardly answer that, speaking generally. A great many of those exhibitions took place before my time.

6450. When you have shown, has it been with the object of increasing or of creating an export trade?—Not so much with the object of creating one as of maintaining one, and increasing our strength in the markets. I have a list here of the principal countries in which we have exhibited. I find that we have exhibited in Paris six times and in London three.

6451. When was the first time you exhibited in Paris?—In 1855. Before that we exhibited in New York in 1853, and since we have exhibited in New York, Chicago, Philadelphia, Brussels, Melbourne (twice), Sydney, Vienna, and Antwerp. Those are the markets in which we have a good trade.

6452. Do you attribute any of that good trade to the fact of your having exhibited?—Not lately. I do not think the later exhibitions did much good.

6453. But do you think you have got any of that good trade through the earlier ones?—Yes, I think that might have been the cause to some extent, but I think the efforts of our agents have been more important.

6454. In foreign countries?—Yes, I think they have done more work.

6455. But do you think exhibitions have been some element in your getting that good trade?—Yes, I think under certain conditions, if you can get a good advertisement, and if the side shows at these exhibitions are not too much in evidence—that is to say, if you can get the public to look at the exhibits, that a good deal of good may be done.

6456. Would you put it in this way—that where you have an energetic agent in a foreign country showing at an exhibition there rather follows up the agent's work?—Yes, I would be inclined to say that—at least I would say that it has done so.

6457. Do you remember at all whether you have always shown in places where you have an energetic agent, or where you have some trade interest, or have you shown in a place where you have no interest whatsoever, but were endeavouring to open up a new trade? Can you recollect any foreign country where you had got no sales at all, and had shown with the object of opening up a new trade?—No, I do not think I can.

6458. You have rather sent your agent first as a pioneer?—Yes.

6459. Do tariffs influence you at all with regard to the choice of places in which to exhibit?—No, I do not think they have ever done.

6460. If there were a large exhibition in a foreign country and you had some trade there, would you show no matter how high the tariff might be?—Yes, if it seemed advantageous from other points of view to do so.

6461. I see you did not show at all in St. Louis and Chicago on the last two occasions?—No.

6462. Was that because you have got such a good trade in America?—Yes, to a great extent that is the reason. In regard to those exhibitions we have acted on our agents' advice. They did not wish us to exhibit; they did not care about it, and they did not see any good in it, and we simply concurred in their view. We have very good agents over there, who cover the country very adequately by means of their organisation, and they did not see any necessity for exhibiting.

6463. You showed a great deal from 1855 to 1900, and since then you have not shown so much?—That is so.

6464. Is that because you think you have gained a sufficient reputation, and you can do without showing now to the same extent that you did in the past?—No, it is not that, I think, that enters into it at all. It is simply because most of those large exhibitions have outgrown themselves really.

6465. It is due to the character of the exhibition, then?—Yes.

Mr. H. T. Milward.

16 May 1907.

6466. And because it has not been so useful to you?—Yes.

6467. Your goods are rather lost in a large exhibition, are they not?—Yes.

6468. I see you put the cost of your exhibit at from £400 to £800; a considerable amount of that cost would be in the show cases themselves, would it not?—Yes, and a good deal in the labour of attaching the goods.

6469. The show cases would be expensive things?—Yes.

6470. Show cases to fill so much of this room as you indicated would cost a very considerable amount of money, would they not?—Yes.

6471. Would you say more than half that sum?—Considerably more if of an elaborate character.

6472. Then the cost would be nearly all due to the show cases?—Yes, and to the labour of selecting and attaching the goods.

6473. I suppose your business is chiefly in needles?—Yes

6474. The fish-hooks and fishing tackle is a smaller matter?—Rather, but not very much so.

6475. Are the hooks and tackle for deep-sea fishing?—They are of all kinds—not fishing-nets, but all kinds of hook-fishing. We make all kinds of articles pertaining to hook-fishing.

6476. For the ordinary river fishing, not sea fishing, you would have a larger number of clients in England than abroad, would you not?—But a great number of them are very small, whereas abroad our direct dealings lie more with large houses. I may mention, by the way, that the exhibit at Paris did not include fishing tackle; it was only needles and a few hooks.

6477. Besides exhibitions, do you take any other steps to advertise your business?—Yes, we advertise in this country through the Press to some extent.

6478. Through the trade papers?—A little through the trade papers, but not much. We spend a good deal of money on counter boxes, show cards, and all that sort of thing.

6479. As a matter of business, I suppose you could get that without sending to foreign exhibitions?—I think we could. That has been our view, and we have not sent to them lately.

6480. How often would you care to send to a foreign exhibition? Supposing there were exhibitions held every five years abroad in the capitals, or every seven years, or every ten years, what would be the sort of period that you would wish to elapse before you went to the expense of showing again?—If we had a choice, I should think about every seven years. Of course, there might be good exhibitions very closely following upon one another which one might not care to miss; but I should think once in seven years would be often enough.

6481. Both for business purposes and also having regard to the expense?—Yes, and the trouble.

6482. (*Mr. Algernon Law.*) Do you exhibit at fishery exhibitions?—Yes. We exhibited at the Fisheries Exhibition in 1883.

6483. I think there has just been, or is going to be one at Vienna?—I believe so.

6484. You are not taking part in that?—No.

6485. Is that because you are afraid of your goods being copied there?—No.

6486. Nothing of that sort?—No, I do not think it is of sufficient importance for us, really.

6487. You did not exhibit at Milan, did you?—No.

6488. With regard to your agents in America, are they people who sell for you, or are they a sort of commercial travellers? Do they sell under their own names—that is, do they put their own names on your goods, or do you have your own name on the goods?—We have our own name on the goods; they only act for us for the sale of needles.

6489. So that it is not likely that they dissuaded you from exhibiting at St. Louis because they were afraid of people coming direct to you?—Not in the least.

6490. That was not the reason?—Not in the least.

6491. I was rather wondering, because that is the reason given in some cases?—That would not be so with us.

6492. When you do exhibit, are you prepared to pay your own expenses, or do you expect the Government to assist you?—We are prepared to pay our own expenses.

6493. You were not satisfied with the position of your goods in Paris, but you think that it was more or less inevitable?—Yes.

6494. Had you anything to say in the matter? Were you told that your goods were to be placed up in the gallery, or was that a surprise to you when you saw them?—We knew they would be in a gallery.

6495. (*Mr. Harris.*) Following that up, you did not put in any complaint about the position at Paris, did you?—No, I do not think so. It did not seem any use to do so.

6496. Did that exhibit in the gallery cost you some hundreds of pounds?—Yes; it cost us altogether about £800.

6497. Did you get an award?—Yes.

6498. Then apparently your position in the gallery did not conflict with your being considered for an award?—No; I have not got anything to complain of as regards the award, but I do not think the award was much use when we got it.

6499. Do you know how you got it? Did you take special steps to push your exhibit before the jury, or did they come of their own accord?—The jury came round, and this agent of ours was instructed to meet them and show them the exhibit.

6500. So that as regards the award and such like exhibition purposes, your position in the gallery did not really hurt you very much?—No, I do not think the position in the gallery made the slightest difference to the jury; in fact, I was told, or we were led to understand, that if this had not been a collective exhibit, if we exhibited alone, we might have had a *grand prix*, but as it formed part of a collective exhibit they would not give collective exhibits anything better than a gold medal. It was only a collective gold medal that we got.

6501. I would like to push you further on a question that Mr. Law just now asked you. I have rather gathered from some previous evidence that we have had, that Redditch needles were exhibited under the names of agents at the St. Louis Exhibition; are you quite sure that none of your own were so exhibited?—Of course, I could not speak for any other exhibits of needles, but I am sure that ours were not, unless some American dealers or people of that kind happened to exhibit them.

6502. But are you quite sure, as you told Mr. Law just now, that your agent did not "do" you in the matter, so to speak?—I am quite sure of that. There could not be any "doing" about it. If they had chosen to exhibit at their own expense, we should only have been too delighted, as they would not have done us any harm, because they do not sell under their own name at all; they only sell under our name and one or two other names which belong to us.

6503. Then you are quite sure that you would have got the credit for anything that appeared?—Yes, I am certain.

6504. Did you consider whether you would exhibit at the recent exhibition in New Zealand?—Yes, we did think about that, and we came to the conclusion that we were spending a good deal of money in advertising in other ways, and therefore we should not be justified in spending money in that form of advertisement, in addition.

6505. In other words perhaps, the advantage in the way of trade would not have compensated you for the trouble of sending; is that it?—That is about it—and for the extra cost.

6506. You said something to the Chairman about judgment going by default if Great Britain stood out of international exhibitions altogether; do you mind explaining what you meant by that?—I thought that if people went to exhibitions and saw Germany was represented, and the United States were represented, and other countries too, but Great Britain was conspicuous by its absence or by a poor sort of exhibit, judgment would go against Great Britain.

6507. What is your general impression about the appearance of Great Britain as a whole at Paris in

1900; was it good, or bad, or indifferent?—I thought it was a fair exhibit.

6508. Would it, on the whole, do credit to British industry?—Yes.

6509. You do not think judgment would have gone by default?—No, I should hardly be prepared to say that, but it might have been better. I thought that other countries had arranged and decorated their portions of the exhibition better.

6510. You would not have had Great Britain absent altogether there?—No, I think that would have been a mistake.

6511. (*Sir Isidore Spielmann.*) With reference to your unsatisfactory space, where did you take that space—in London, or was it allotted to you in Paris?—I should think it was taken through the Commission in London.

6512. If you were allotted space in a gallery in London, and you were dissatisfied with it, why did you accept it?—I did not think there was any choice in the matter.

6513. Did you ask for something better?—I cannot remember now whether we did or not, I am afraid.

6514. Your collective exhibit consisted of the products of three other firms and your own?—Yes.

6515. Who promoted that exhibit as a collective exhibit?—We promoted it jointly. The idea was first raised by a member of another firm, William Bartleet and Sons, who are leading manufacturers of the same goods. They consulted us on the matter, we concurred, and we agreed between us to invite two other firms to join us.

6516. Messrs. James and Son and Messrs. Kirby Beard?—Yes.

6517. You were personally responsible with Messrs. Bartleet in forming the collective exhibit?—Yes, primarily.

6518. Who installed it at Paris?—The agent I mentioned just now.

6519. I see in the official report it is referred to as "the most artistically arranged exhibit in the whole of class 65." Did you know it was so referred to in the official report?—I do not remember seeing that before, though I may have done.

6520. This Committee is curious to know who was responsible for such an artistically arranged exhibit, you or the Royal Commission?—Neither of us, strictly speaking. The person who was responsible really, who designed it, was a man named Wheatley, who is a sculptor. He drew out a plan for this exhibit, and the person who made up the designs on which the needles and fish-hooks were attached was this man who acted as agent for us, a Mr. Peel. He is a sort of heraldic stationer—or a man of that description, who knows a good deal about these goods we make in Redditch, because he has had a good deal of experience in preparing for exhibitions before. The things were all put together, and we sent him over to fix them up there, or to get them fixed up. Those two men were really responsible for the actual artistic work, and I believe received an award for the excellence of their work.

6521. I made that quotation to show that the exhibit was attractive in appearance, and it seems a pity that it should have been stuck away in a corner of a gallery when you might perhaps have had a better position in the first instance?—I think it was a pity too that we were placed there. But I cannot say we were stuck away in the corner. I do not know whether you remember that exhibition at all, but there was a very large and wide gallery which meandered about around the building, and we were very well placed in it, with a large open space all round. My complaint is not as regards the amount of space that we were allowed, because we not only had all the space we asked for, but we had this very big sort of gangway around. It was the position I complained about.

Mr. H. T. Milward, 16 May 1907.

6522. You took a gold medal, you say; did each one of the firms exhibiting with you receive a similar award?—We were given one gold medal between us.

6523. But with a diploma to each firm?—Yes, I believe each firm got a diploma for a gold medal.

6524. Did you exhibit in 1897 at Brussels?—Yes.

6525. Do you recollect what the effect of the British section at that exhibition was on your mind?—No, I cannot say I do very well. I was only there a very short time.

6526. I think you said you would have had the *grand prix* if you had exhibited by yourselves at Paris?—So we were told.

6527. So you lost by that?—Yes, but saved a very heavy expense while contributing to a handsome advertisement for Redditch.

6528. (*Mr. Algernon Law.*) Was that because there was a rule that no collective exhibit should receive a *grand prix*?—We were told so.

6529. It was not because your exhibit was watered down by inferior companions?—No, that was not so. We were told by some people who had acted for us before that if we had been by ourselves we should have had the *grand prix*, but they were not giving to collective exhibits anything higher than a gold medal.

6530. (*Chairman.*) Still, you say you do not attach very much importance to such distinctions as the difference between a *grand prix* and a gold medal?—Not so very much. A *grand prix* would have been interesting, because it would have been the first time that a needle exhibit would have received a *grand prix*. The French maker got a *grand prix*, of course, and he was on the ground floor, too, of course.

6531. And you think you deserved it as much, or more, perhaps?—I should think so.

6532. Do you think he got the *grand prix* because he was in his own country?—Yes, decidedly. He exhibited some running machinery certainly, which made it in some respects a more interesting exhibit.

6533. But I suppose the award was made by the quality of the goods, and not only by the name?—You cannot judge of the quality of the goods in an exhibit of needles. You cannot eat them or anything of that sort; you can only look at them as they are sewn on cards under glass; you can only see the polish, and it is impossible to examine the way in which they are made, or anything of that kind.

6534. Your French competitor had his goods shown in process of manufacture?—Yes. I think there are only two needle manufacturers in France, and no doubt the French Government was glad to do something to foster a French industry. The particular man who exhibited had also got social ambitions; he wanted to be Deputy and that kind of thing.

6535. Do you think it would help him in that way?—Yes. He was very keen, and I know he spent a great deal of money with that object.

6536. (*Sir Isidore Spielmann.*) I hope your agent only stated that as his opinion, and not as a rule of the exhibition, because he is quite at fault if he told you that collective exhibits could not get *grands prix*?—He gave us to understand that it was the rule.

TWENTY-FIRST DAY.

Thursday, 30th May 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Mr. Henry Birchenough, C.M.G., called and examined.

Mr. H. Birchenough, C.M.G.
30 May 1907.

6537. (*Chairman.*) You are a member, are you not, of the firm of Messrs. John Birchenough and Sons, which is a very old-established firm in the silk manufacturing business?—Yes.

6538. What goods particularly do they manufacture?—They manufacture all classes of silk goods, chiefly for men's wear.

6539. Not piece goods chiefly?—They manufacture piece goods for printing and silk crêpes, but mainly they manufacture goods for men's wear.

6540. Handkerchiefs, for instance?—Yes, handkerchiefs, mufflers, and silk piece goods for cutting up into cravats and ties.

6541. I understand that you have exhibited at several international exhibitions abroad?—Yes, but entirely in Paris.

6542. You exhibited at Paris, I believe, in 1867, 1878, 1889, and 1900?—Yes. We exhibit at Paris because Paris is the chief market on the Continent for the sale of silk goods.

6543. It is also the biggest market, I suppose?—It is the largest market, and it is also the largest distributing centre of the silk goods of all nationalities.

6544. You say the goods you exhibited were manufactured silk stuffs; would they be piece goods only, or would your exhibits include small things like ties and scarves and handkerchiefs?—Our exhibits include all classes of silk goods suitable for men's wear, and also piece goods for women's wear.

6545. Have you had any increase of business with foreign countries which you can attribute directly to the exhibition of your goods and their inspection by visitors at such exhibitions? I understand you think that is not a very easy question to answer?—I do think so, because it is always rather difficult to know whether an increase of business is due to a temporary cause like an exhibition.

6546. Would you say that in your case an increase of business followed your exhibits in 1867 and 1878, and was directly traceable to them?—Yes; that I can say definitely. We had a very considerable increase of business with France and with other foreign countries after those exhibitions. I should say the reason for that was that English goods were less known in those earlier days, and that our exhibits introduced many foreign buyers, especially buyers out of France, to the class of goods which were made by English people.

6547. I suppose on the whole there was a bigger silk manufacturing business in this country then than there is now?—There was a larger silk business then, but I do not think a very large business was done abroad. There certainly was a larger business for home consumption.

6548. Would your goods go generally on the Continent, or only to France?—They would go on the Continent generally—to Austria, Italy, Germany, and other foreign countries.

6549. Then we take the *per contra*. Have you ever experienced any actual disadvantage from exhibiting at such exhibitions, either from having your goods copied by foreign competitors, or in any other manner?—I think that our goods, which were rather specialities, were copied undoubtedly. The English people for a long time have led the fashion in men's dress; and most of the tie materials, for instance, are really of English origin. I think seeing our goods on a large scale in exhibitions enabled foreign manufacturers to copy our articles; but I am not prepared to say it was injurious to us, because I think it created a larger trade in men's goods than existed formerly.

6550. I suppose your designs are not registered—indeed, they could not very well be registered?—That is so. In the earlier days, before 1867, or even before 1860, men chiefly wore plain stuffs for tie materials, for instance, and for their neckwear of all sorts; but the English introduced rather a different style, a more elaboraate style, of cloths with designs upon them, and they popularised a fashion which has since become general.

6551. Do you attach any great value to the awards which you have obtained at exhibitions?—I think in early days a great value was attached to exhibition awards, before exhibitions became so common as they have since become, and I think they were so valued, because they gave you a certain prestige. We exhibited, for instance, in 1867, and got then the highest award of any English silk manufacturer.

6552. In any trade?—In silk manufacture. We were the only ones who got at that time a silver medal—I think gold medals were then given less frequently than they have been given since. It undoubtedly gave us great prestige, the fact that we had succeeded in obtaining from an international jury a silver medal at a great French Exhibition. The same applies to the exhibition of 1878, where we again got a silver medal. I think that was a great advantage to us, and I think it gave us very considerable prestige. It certainly confirmed and increased our French connection. At later exhibitions we got gold medals, without, I think, their having any favourable effect on our business; but exhibitions, meanwhile, had become more frequent and less thought of.

6553. And the prizes had become very numerous, had they not?—The prizes had become much more numerous. They are given now with very great facility, and it seems to be rather a slight not to give a medal to an exhibit now.

6554. Do you think it would be a good thing to reduce the number of medals?—I am quite sure of that.

6555. It would make those that were given worth more?—Yes.

6556. Do you put on your business cards the medals that you have got at these exhibitions?—We used to do so, but we do not now.

6557. Have you ever been induced to buy from British or foreign manufacturers to any considerable extent as the result of having inspected their goods at any exhibition?—Yes. Our opportunities for buying foreign goods are not very large, as they only relate to the machines for our trade; but we certainly have bought machines from seeing them at exhibitions.

6558. And you have made use of those machines?—Yes. We have bought looms, and we have bought more especially the subsidiary appliances of looms, such as shuttles and other small appliances that are used in weaving.

6559. Can you specify any definite points on which you have derived instruction or knowledge from visiting exhibitions, for instance, in methods of manufacture or economy in manufacture, or opportunity to purchase improved machinery, and the like?—In almost every case I have learnt something from the exhibits of the trade in which I am interested—new and more economical methods of manufacture, varieties of design and colouring, and, most of all, ideas for the improvement of old machines as well as suggestions for the purchase of new machines. Nothing is more stimulating than the comparison of other people's methods with one's own; I regard this as the chief value of exhibitions. This reply extends not only to the exhibitions in which we have exhibited, but to the various exhibitions which I have been to see, both in this country and abroad.

6560. That is a point I should like to get from you; you have been, you say, to several exhibitions besides those in Paris?—I have been to many—in Italy, Germany, Switzerland, and here in England.

6561. You have not been, then, to the late big exhibitions in America?—No.

6562. You were not at St. Louis or Chicago, then?—I have never been to America.

6563. Nor was any member of your firm at those exhibitions?—No member of my firm has been to America.

6564. I suppose America is now much the biggest market in the world for silk, is it not?—Not for imported silks.

6565. But is there not a greater consumption of silks in the United States than anywhere else?—Of silk thread, yes, certainly.

6566. If you have refrained from exhibiting your goods at any great international exhibitions in the past, what were the reasons by which you were actuated? In this connection you have told us that you have only exhibited in Paris?—That is so. We have only exhibited in France because we have regarded France as the most expansive market. What has been in our mind in deciding whether to exhibit or not was the question whether it was worth while—naturally, because it is a considerable expense to exhibit and means a good deal of trouble. We always felt that it was worth while exhibiting in France, because there we did get some increase of business, and also having a large connection in France we felt that it was expected of us to exhibit.

6567. I suppose you have very close connections with France?—Yes.

6568. In buying as well as selling?—When I was actively engaged in business I had a large connection in France, and we held a very favourable position there. When the later exhibitions came on, I felt that the fact that one did a large business there was a reason for exhibiting, and I thought my customers would consider it a discourtesy if we did not exhibit. Our main reason was that we thought it worth while to exhibit in France, the market being sufficiently expansive and progressive. In Germany, though we do some business there, we have never exhibited, because we have hardly thought it worth while; we did not think we should get much return for our expenditure. There was a large increase in the duties there which checked our business, and so we thought it was hardly worth while. The same applies to Austria and Italy; they did not seem to afford sufficiently promising markets for us to go to any very considerable expense in order to gain them.

6569. In regard to the United States, have the import duties kept your goods out a great deal?—In the United States the import duties on silk goods are from 50 to 60 per cent. We do a certain amount of business there, but the duties on our particular class of goods are so high that we could not expect a very large increase of business. Then we have considered that we know the most important customers in the United States who are capable of buying our goods.

6570. I suppose in silks, as in several other classes of goods that have come before us, it is only specialities of the very best kinds that pay those high duties in the States, because they are sold to rather a superior class of customer?—Quite so. The demand for imported English goods is limited there. By the time they are landed, practically our price is increased 80 per cent. to 90 per cent., so that the market there is very limited for our particular class of goods.

Mr. H. Birchenough, C.M.G.

30 MAY 1907.

6571. I believe that you have been disinclined lately to exhibit at home or abroad, because you think the value of exhibitions as a means of advertisement is far less than it used to be?—Yes.

6572. I should like you to explain that a little; why is it less?—If I may just go back, 30 or 40 years ago buyers did not know where to find goods, and goods were bought, as you are no doubt aware, largely through intermediaries, that is, through agents, the buyers seldom going to the manufacturers themselves.

6573. By "buyers" do you mean the large shops?—I mean the large wholesale houses. I am referring entirely to foreign countries, and I am not speaking of the home trade. English goods were almost always bought through a buying agent either in the foreign country or in London, and that is still the case to some extent. Indents were sent to these agents and they distributed the orders where they chose, the buyers not being in direct communication with the manufacturers. That is the case, as you know, even today to some extent with the colonial buyers. The exhibitions of the last 30 or 40 years have opened the eyes of all buyers, even comparatively small ones, to the actual place of manufacture and to the individual manufacturers of goods of all sorts, and the origin, the *lieu de provenance*, of goods of all kinds is so well known to buyers now that you really do not need to exhibit in order to show them who you are, and what you are.

6574. Then the agent has been rather squeezed out?—Yes, he has been squeezed out to some extent, or he has found other business.

6575. The big buyer abroad now knows where to go for his most suitable goods, does he?—Yes, he knows that now. Formerly, say in 1867 or even as late as 1878, we showed our goods in Paris in order that the actual buyers of the goods might see where they came from. Those exhibitions brought us a very large number of customers who already, probably, did business with us, but did not know us, and we increased our business very much. But now they know who the manufacturers are, so we do not need to exhibit.

6576. Did you exhibit there under your own name?—Yes.

6577. Did you sell then through an agent?—No. We wished to do business direct, and we succeeded in doing it direct.

6578. You did deal direct then?—Yes, we sold direct. I think the remark I have just made is true of all trades; the origin of the goods now is known all over the world to all buyers, and there has been a great change in business in consequence.

6579. I understand that you are in favour of our being well represented at any large international exhibition?—Yes, I am strongly in favour of that.

6580. Quite apart from your own business point of view?—Yes. I have ceased to be personally interested in the silk business practically, but from the point of view of British trade generally, I am very much in favour of the country being represented.

6581. You are not very much interested in silk now, you say?—Not now; but speaking from the general point of view of British trade, I am, as I say, very much in favour of the country being represented at international exhibitions, provided we are suitably and properly represented.

6582. I suppose that you would sooner that we should not be represented than that we should be represented badly?—Very much. I think the present state of affairs is extremely unsatisfactory. I think British manufacturers generally are rather sceptical about the use of exhibition. They are very unwilling to incur large expense, and the larger ones who have good connections hold aloof; and so it has been the case at recent exhibitions that we have been generally represented by third or fourth-rate manufacturers, who give quite a wrong impression of the state of British production.

6583. In the third and fourth-rate people would you include the younger firms who are keener to make a name and a business than the older ones?—No.

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6584. You think the people you refer to are really third or fourth-rate people?—Your question is a very just one. I do not think we ought to be represented only by old-established firms; I think means should be found to encourage the younger firms to exhibit. At present I think it is all so higgledy-piggledy and disorganised that we are not necessarily represented by the younger and pushing firms, but that we are often represented by the second and third-rate firms who have nothing particular to lose and perhaps something to gain.

6585. I think it would be very valuable if you gave us your views on the last Paris Exhibition and our representation there; what do you think of it?—I thought, on the whole, it was very unsatisfactory. Wherever there was any attempt at organisation, as, for instance, in the Fine Art Department, or in the Domestic Furniture Department, or in some of the machinery sections, I think we were on the whole well represented; but, generally speaking, it was on a higgledy-piggledy, unsatisfactory kind of basis. I, personally, was very much ashamed of what I may call the unorganised exhibits of British trade.

6586. Whose fault do you think that was?—I think that it is largely the fault of the British system; but I should like to come to that later, on another question.

6587. We can take that now, if you like?—Perhaps you will forgive me for being rather discursive.

6588. We want you to be rather discursive, because we want the full benefit of your experience?—There are trades which are still in the earlier stages of growth in which our present voluntary system, or what I might call our chaotic system, or our unorganised system, does not show its defects. For instance, there are the furniture trades, which are trades in which Great Britain has taken the lead in late years. These trades are on the rising grade, and they exhibit very efficiently. You get large houses, if I may mention names, like Waring's or Maples'——

6589. They are represented here?—You may take any of those large important firms. They are very anxious to push their business, they realise that they are in a prosperous and progressive condition, and, in my opinion, they make very fine exhibits. I doubt very much whether that particular trade, which is a very growing trade, could be better represented by any other system than the present. But other trades which have, so to speak, reached their apogee, like the machinery trades, and many of our textile trades——

6590. Do you say the machinery trade has reached its apogee?—I mean it has been a successful trade for a long time, that is to say, it is a trade in which people can get orders without going out to seek them very largely. Many of the large houses in those trades do not take the trouble to exhibit; they say, "We are quite well enough known without going about in that way." In trades of that kind, and still more in some of the textile branches, I think you require quite a different system from the present individualist system.

6591. Do you mean that you would compel them to come in, as the Germans do, or the French?—No, not at all. I should not compel them to come in, but I should endeavour to persuade the larger firms to exhibit as a matter of national credit. In the trades where I was of opinion that we would have to depend for exhibits largely on the smaller makers, I should carefully sift all their exhibits.

6592. By having collective exhibits from the different districts?—Yes. Supposing you adhere to the present system of Royal Commissions, then I think the Royal Commission ought to endeavour to secure a committee representative of each of the important trades of the country to work with it, very much, as Mr. Wilson Fox knows, as the Census of Production Committee is endeavouring to secure the co-operation of local committees.

6593. You would suggest that a committee of experts should be consulted then?—Yes, quite so. I think you should, as far as possible, endeavour to get collective exhibits; but I think that would be very difficult, because even for the purposes of direct profit British manufacturers in some trades are very unwilling to act together, as you know. When you try to get a joint exhibition of samples in foreign markets, you cannot get it, even when it appears to be to the obvious advantage of manufacturers, to have a common show in foreign towns. In that case, I think, when once you have got your local committee—and when I say "local," I do not mean local to the locality, I mean a trade committee——.

6594. That is, an expert committee for each trade?—Yes; I think that trade committee should, to some extent, control and sift the exhibits which are offered. I think you might give them, for instance, command of the space which you allocate to their particular trades.

6595. And you would not allow inferior things to be exhibited at all?—No.

6596. By that, I mean things which are inferior in the view of the committee?—Quite so.

6597. Do you not think there are great difficulties in the case of the textile exhibits, especially, say, of Bradford goods, dress goods, and goods of fashion? We have been told by other witnesses that there is a difficulty in getting these exhibits, as the manufacturers do not care to show the goods which they are going to put on the market in three months' time, for the autumn trade or for the winter trade, because they may be copied, and then their market will be spoilt; and, of course, you cannot put old things forward at an exhibition. Do you think that your plan would secure for us a good deal better choice in the textile exhibits?—I think you have touched upon a very serious difficulty, but I think you might overcome it possibly by securing a collective exhibit—if you could do that—though it might be very difficult. If you had a collective exhibit, each manufacturer would contribute so small a number of novelties, that he could probably afford to take his chance of being copied.

6598. He would chance that with just a small number?—Yes. The great difficulty which besets all English trade is, I think, the difficulty of getting manufacturers to act together. Take the case of Bradford, for instance; I do not see why their Chamber of Commerce, or their Manufacturers' Association, or whatever body represents them, should not organise a collective exhibit; and I do not see why the manufacturers there should not be gradually persuaded to make a collective exhibit. If that could be done, then I do not think that the difficulty in the way of showing novelties would arise in anything like so acute a form.

6599. But you consider, I understand, that it is in textiles that we have been especially weak and poor at the late exhibitions?—Certainly, and I think largely for the very reason you indicate, namely, the unwillingness of manufacturers to show their hand. In the last Paris Exhibition (1900) the Crefeld people made a splendid collective exhibit of silk goods.

6600. Of velvets?—Of all classes of silk goods—velvets, tie-stuffs, and of the various articles which are their specialities. They made a very fine exhibit, and I do not think that they felt any ill effects from a joint exhibit. Each manufacturer contributed the article in which he was strong. And that is another point I should like to bring out. The great difficulty with individual exhibits is that a manufacturer very often shows all the articles he makes. He wants to show, not his perfection or his quality, but his variety; and the consequence is that a man who is strong in one thing, but probably weak in something else, shows both his strength and his weakness. I do not know whether you can persuade the manufacturers of a district each to show his own particular specialty, but if you could persuade them to do that, of course, you could get a very fine exhibit.

6601. When a man shows individually, he must show a good many things to make any bulk?—He must certainly fill a case.

6602. He cannot just show his strongest things?—No; he has to fill a case.

6603. You think collective exhibits of the textile trades, at any rate, would lead to a better quality?—I am speaking now from the national point of view; it would lead to an exhibit in which each manufacturer to large extent, but not altogether, showed only the articles in which he was strong, so that the whole collection would be a very fine one.

6604. (*Mr. Wilson Fox.*) Still, if he thought he could sell what might be termed his inferior products by showing them abroad, he would show them, would he not?—Yes, he would.

6605. (*Chairman.*) You would give the trade committees, then, pretty strong powers to stop inferior articles being shown in a collective exhibit, I suppose?—Yes. Of course, it is a delicate question, and one

would have to avoid being too strict, or you would not get the committees to act; but by giving them the control of the space, they might exclude bad exhibits altogether.

6606. You mean that they might keep them out on the ground of want of space?—Yes. I would give the committees the entire control of the space.

6607. Have you followed at all what the Germans did at the Paris Exhibition, and, I believe, have done since? They had a sort of State control of what was sent, having arranged for a sort of competition of their own some years before?—I know they did that, but then, of course, trade in Germany is organised very much more than our trade is.

6608. And it is very much more managed by the Government?—It is very much more managed, partly by the Government and partly by the trade organisations. Through their syndicates and their kartels they have got a much tighter grip than we could hope to have through either a Chamber of Commerce or a manufacturers' association.

6609. You do not contemplate the Chamber of Commerce exercising a direct control, do you?—No, not the Chamber of Commerce. I would rather the manufacturers appointed a committee of their own to consult with the Royal Commission.

6610. As I think you and I agree, the Chambers of Commerce are not all uniformly efficient?—Certainly not.

6611. And you could not always depend upon them to exercise proper control?—Of course. It depends on your point of view. If we want a really efficient representation of the condition of our national industries at an international exhibition, I think we must exercise some control. If you wish that we should be fairly represented in comparison with other nations, I do not think you can allow—supposing you have power to stop it—the present higgledy-piggledy system to continue.

6612. Do you think the manufacturers would come into such a system as you have described?—I think they would on persuasion and by degrees. I think they are sick of the present system; the large manufacturers are tired of it, and do not think it is worth while exhibiting.

6613. We have found from the inquiries we have sent out from here that there is a great deal of indifference as regards exhibiting at all?—Quite so. In that case, you have got to go back to the beginning. I think you would get a certain number of large manufacturers who, out of trade patriotism, would begin to exhibit again if they thought the conditions were favourable.

6614. But they would not want frequent exhibitions, I suppose?—No.

6615. As regards this control, I gather that you think a Royal Commission is about the best means of starting the work of controlling the participation of this country in international exhibitions; or do you think the London Chamber of Commerce or any association of Chambers of Commerce could manage it?—I should be strongly in favour of an independent body of the character of a Royal Commission.

6616. What do you think about having a small permanent nucleus attached either to some Government department or to the Advisory Committee of the Board of Trade, to keep the documents from one exhibition to another, and to be responsible for starting the work?—A sort of small secretariat do you mean?

6617. Yes?—I should view that favourably.

6618. Do you know the French system and their *Comité*, which a great many of the manufacturers seem to belong to?—Yes, and I have friends who belong to it, as a matter of fact. I am very doubtful whether we should get that in England. It it worth trying, but it is rather doubtful.

6619. Do you think that the starting and the control of this work must be through a Royal Commission, and that they must get the best advisory committee to help them that they can?—I do think so. I think that a Royal Commission appointed *ad hoc* would bring a certain freshness to the thing, and I think a permanent body, however small, would give a kind of routine to it, which, I think, would be unattractive to ordinary people.

6620. You do not mean by that that you ought to have all the staff fresh to their work, do you?—Not at all. I think that your idea of a small secretariat would keep up the traditions, and would pass on all the information connected with exhibitions from exhibition to exhibition. I think that idea is excellent. Still, I think that for each large international exhibition the present system of Royal Commissions is a very good one, because then you constantly associate fresh people with it.

6621. Did you have anything to do with the British Royal Commission for the Paris Exhibition of 1900?—No.

6622. Then you cannot give us any experience as to the excellences or defects in management there?—No. I think the tendency always is a little to keep on appointing the same people. That may be quite untrue, and I do not know all the names, but I think there is rather a tendency to put on exhibition commissions the same people.

6623. On the staff, do you mean?—Yes. I think it is always a good thing to renew the *personnel* from exhibition to exhibition.

6624. By the staff do you mean the paid staff or the big manufacturers and merchants who are members of the Commission?—I mean the members of the Commission.

6625. Is it not the case that there are hardly enough to go round, and that it is rather difficult to get men to come forward every time for this work; or do you think there are plenty?—I think you could find men enough to get a change of *personnel* easily.

6626. (*Mr. Harris.*) Your firm has not exhibited at any Colonial exhibition; did you include the Colonies generally amongst the places where it was scarcely worth while to exhibit?—Yes.

6627. Because it would not have paid you?—No, but because the Colonial houses until quite lately, in fact, have bought their goods through their London buying houses—and they do that still very largely.

6628. Looking to the general effect of your evidence, would you be inclined to welcome a proposal to drop out of exhibitions altogether—I mean to drop them out of exhibitions altogether—I mean to drop the idea out of the sphere of trade?—No. I think that if they are not held too frequently they are exceedingly stimulating. They have done a great deal of good, and the comparison of the products of one country with another has been, on the whole, undoubtedly stimulating.

6629. Yet you remarked just now that as a means of advertisement their utility was past?—Yes; and I think very largely that is so; but as a means of intercommunication of ideas and knowledge I think they are very much alive.

6630. May I just refer again to that phrase "as a means of advertisement." It is capable of a double interpretation—an advertisement *qua* the country's industry and an advertisement for the individual; had you both in your mind, or only one?—I think I was speaking purely of the individual, because I think an international exhibition may still be very useful as a national advertisement. Take, for instance, the case of the last Paris Exhibition. I would refer to the exhibition of the Crefeld manufacturers there; that exhibit had an extraordinary effect, and all countries seeing that exhibit realised for the first time what a very important silk manufacturing country Germany had become. I think that had a great effect. I think the same considerations apply to certain exhibits of French machinery. I do not say that the specialists were unaware, but the world generally was unaware of the great progress France had made in the manufacture of fine machinery until the last exhibition. Therefore I think international exhibitions are still a very good means of national advertisement.

6631. And therefore it is purely from a national point of view, I take it, that you would consider it proper for the Government to spend money upon them?—Yes. I think the fact that of late years Great Britain has ceased to be adequately represented has added a good deal to the feeling in the world that England is relatively declining. To many peoples' minds it is one of the small symptoms. They see a splendid German exhibit and a fine Russian exhibit, and so on, and then they see the English section is poor. Of course, well-informed people know that the English have not taken the trouble to exhibit, but there remains the fact that the English exhibit is not so superior as it used to be to the other foreign exhibits, and of course that is taken to mean that the whole country is going back.

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6632. May I take you on a point there as regards the Paris Exhibition of 1900. I think it is generally admitted that the British pavilion at Paris, the old Jacobean house, was a great success. Was that your view, or would you say that it had no great general effect upon the prestige of England at that exhibition?—I think it had a great effect. In the exhibition of 1878 the firm which then existed in London of Collinson and Lock exhibited in the Rue des Nations a very beautiful English cottage—I do not know if you remember it. It was charmingly furnished, and as far as I know—and I have known France very intimately for 30 years—that was the first revelation of the beauty of modern English domestic furniture. Subsequent exhibitions confirmed that idea, and I do not think there is any doubt now that in domestic furniture England leads the world.

6633. And you would argue from that—indeed you imply it in what you say—that the pavilion in the Paris Exhibition of 1900 rather crowned that idea?—Yes, I should say so, certainly, with its exhibition of pictures and furniture.

6634. It seems to me that your evidence works up to this perhaps. In the first place, you lean towards a collective exhibit in every trade in future exhibitions, if Great Britain is to do herself justice; is that so?—A collective exhibit in those trades in which the best individual manufacturers show unwillingness to exhibit.

6635. You would not make it universal then?—No.

6636. You would have a certain right of selection?—Yes. I say, for instance, the furniture trade does not need a collective exhibit, because the most prominent firms are still willing to exhibit of their own accord, and I should be inclined to leave them alone, and let them do it. But where the leading members of a trade do not show any anxiety or desire to exhibit properly or efficiently for themselves, I think they might be persuaded to join in a collective exhibit.

6637. Are you not then in this difficulty, that a certain number of firms would go on their own account, and worthily go on their own account, and therefore would not want any support from the Government; whereas there are other firms who want to be stirred up and almost driven into it, and you can hardly drive them into it without giving them a certain amount of Government support, that is, a money grant of some sort?—I suggest that the committee of the trade might be left to deal with that.

6638. I am looking at it from the point of view of the Government—from the point of view of a grant and facilities, and so forth?—Am I to understand you to suggest that a grant of public funds should be made towards these collective exhibits?

6639. What I have in my mind is this. A grant of public funds for international exhibitions has hitherto been usual, and if you are going to force a collective exhibit, the reply will almost necessarily be, "We want certain expenses paid"; but if you have certain firms who, you say, are quite ready and quite worthy to go in by themselves, I do not see why the Government should give them any assistance; and then you get a differentiation, which would be a difficulty. I am working back to my original question. Do you say that collective exhibits should be the general rule, or do you still adhere to your view that in some cases you can have them and in some you cannot?—What I had in my mind was that if possible you should have trade committees, and then those committees will very quickly decide whether it is necessary to have collective exhibits or individual exhibits.

6640. (*Chairman.*) I rather took it, when I asked you those questions about collective exhibits, that it was mainly in the textiles that there was the greatest difficulty in getting exhibits now, and not in furniture, machinery, and so on?—That is so. Where trades will continue to exhibit and to send really representative and worthily representative exhibits, I do not want to have collective exhibits; and I think a trade committee will tell you that too. But I think you might, from the central funds, give grants-in-aid to those trades which are unwilling to send a proper number of individual exhibits.

6641. (*Mr. Harris.*) And you do not think that would be an unfair subsidy?—No, I do not think so. I do not think the furniture trade, or the machinery trade would ask you for a shilling; I think there are a sufficient number of people in those trades who are either anxious or patriotically desirous of making a proper show without any assistance. But I think in some of the other trades you may have to help them a little.

6642. I suppose you put it on the ground that it is in the interests generally of the country to show what you can do in those trades?—Yes. I ought to say that I regard the collective exhibit as having a double advantage—in the first place of making a better exhibit and a more representative exhibit; and in the second place as involving less expense on individual manufacturers. I think manufacturers who would not shrink from sharing in a general exhibit, would shrink from expending a couple of hundred pounds or so on an individual exhibit.

6643. You have it in your mind that the saving of expense would be an inducement in itself, have you?—Yes. I had not in my mind at all any grants.

6644. You told the Chairman there were too many awards, I think?—Yes.

6645. How would you view doing away with them altogether?—I am not sure that I can answer that question. They have become such a farce that possibly I should be in favour of doing away with them, but I do not know how far they influence people. The fact that they now award a gold medal, and you have to buy it yourself, has made it rather a farce; they might just as well give you a card with a gold medal stamped on it. Do you mean to have the whole thing *hors concours*?

6646. It would hardly be *hors concours*, but you would get nothing for it except a certificate, I suppose?—I am not sure whether my individual opinion is worth much on that question.

6647. (*Sir Isidore Spielmann.*) You have visited a large number of exhibitions, I think I heard you say?—Yes, I have.

6648. Can you recall any one where the British section, taken as a whole, made a favourable impression upon your mind, as compared with the French and German sections?—I think, so far as my memory serves, that until, say, 1878, our exhibits were on the whole satisfactory.

6649. Was the exhibition of 1878 a satisfactory one?—I think so.

6650. And the exhibition of 1889?—That was much less so.

6651. Since then have they been dwindling in importance?—I should say so, certainly. There are sections which continue strong and representative, but as far as I can remember, since 1889 our exhibits have been very unsatisfactory.

6652. Can you tell the Committee at which international exhibitions you think we made the worst impression?—I think in most industrial departments our exhibit at Paris, in 1900, was singularly poor.

6653. Have you visited the smaller exhibitions; for instance, the exhibition at Brussels, in 1897, and the Milan Exhibition, of last year?—I saw the Milan Exhibition last year, and I saw the Milan Exhibition of, I suppose, 25 years ago—I do not remember the exact date, perhaps it was 23 or 24 years ago. Our exhibits were poor.

6654. In order to remedy our defects, would you think that if we formed collective exhibits in most of the important sections, we might do better?—Yes, I should think so.

6655. In your evidence you have rightly referred to the art section as a collective exhibit; and I take it you are of opinion that if we can make a strong representative show in art, we ought to be able to do the same thing in many of the industries?—Yes. Of course, in painting, for instance, it is a much easier thing to get a collective exhibit, because in many cases the exhibit, that is, the picture, is not in the hands of the artist, and it is not the artist who exhibits it. You make collections on quite a different plan in exhibitions of works of art, so that I should not like to push that analogy too far; but I think that following similar lines, collective exhibits, in certain trades, would give good results.

6656. And because we have not been successful hitherto in forming collective exhibits in the industrial sections, there is no reason, as far as you can see, why we should not succeed in forming them in the future?—No, I think not. I think you need to use powers

of persuasion with the various trades to get them to co-operate, and I think a Royal Commission might succeed in doing that.

6657. Do you think the fact of assisting financially towards their expenses would be an inducement?—I should be rather loth to introduce that element, unless I was obliged.

6658. Now, referring to the awards, we have had witnesses here who have rather indignantly denied the allegation that awards are given indiscriminately and without much thought; but, as I understand, you are of opinion that they are not always given with judgment?—That is my impression. I do not like to cast any reflections on the juries, who take a great deal of trouble, but I think those awards are scattered rather broadcast.

6659. How would you appoint your committees of experts, may I ask?—I should ask the traders to appoint them.

6660. Would you leave it entirely to the various trades to appoint their own committees?—Yes. I think that the Royal Commission might add a member or two; but certainly you could get all the larger trades to appoint committees.

6661. And the members of those committees would be representative members of firms engaged in the various industries?—Yes.

6662. (*Mr. Malcolm Ramsay.*) I suppose you know that Great Britain has spent considerable sums from time to time on taking part in exhibitions?—Yes.

6663. You know that generally?—I know that sums have been spent, but I do not realise how much has been spent.

6664. I wanted to ask you whether you have examined the accounts, and whether you think we have had value for the money—that is, whether the money has been spent to the greatest advantage?—I have no idea. I always understood that the grants made by our Government were less than the grants made by foreign countries.

6665. I was thinking rather whether we used the money in the most effective way. Have you any experience which would enable you to give us an opinion on that point?—I could not say anything at all on that.

6666. Could you indicate to the Committee the kind of interval at which you think it would be reasonable for this country to go into a big international exhibition from the point of view of the national advertisement?—I should think a minimum of six years. I should have said longer, but so many industries are changing so rapidly and developing so quickly that I should be inclined to shorten the period. Formerly, I think, when things moved more slowly, ten years would have been little enough; but I think now that perhaps ten years is too long.

6667. You would not think a big exhibition would be required more often than once in six years; that would be the minimum which you would fix now?—Yes, I think so.

6668. (*Mr. Algernon Law.*) You appear to think some industries are advancing so rapidly that possibly six years would not be often enough, but you would not have an international exhibition, by which I mean a general exhibition, to meet the case of particular trades, would you? I suppose they would probably look after themselves, like the motor industry, with its special motor exhibitions?—Yes, certainly.

6669. Have you anything to say with regard to the organisation of the British section, so far as you observed it, of the two Paris exhibitions of 1889 and 1900? One was the result of private effort, and in the other case there was a Royal Commission. Could you notice any difference; was one better managed than the other?—I think the British section in 1900 was more complete than the British section in 1889; I mean, you got a very much larger exhibit of outside collections, of non-industrial collections, than you had in the previous one, I believe.

6670. We have had it in evidence that the British section in 1899 was much better managed than in 1900, but you did not observe that?—I really do not remember. My personal connection with it was so small that I can hardly answer your question.

6671. (*Mr. Wilson Fox.*) The textile industries would lend themselves more to collective exhibits than most other trades, would they not?—Yes, I think they would.

6672. To a considerable extent they are not the sort of goods that are likely to be attractive to those who visit an exhibition, except the experts?—On the whole, no.

6673. Jewellery, for instance, would attract holiday-makers at an exhibition, and that might lead to orders; but the textiles would mainly attract only the big buyers and the merchants, would they not?—I quite agree with you.

6674. Supposing Bradford got up a collective exhibit for woollen goods, or supposing Macclesfield got up a collective exhibit for silk goods, how far would the element of the name of the manufacturer be in the minds of those who joined in the collective exhibit; or how far would the gentlemen in Macclesfield feel that they were advertising Macclesfield as a whole, and that their end, broadly speaking, would be gained by advertising Macclesfield and not the individual firms?—I thing people realise much more than they did that it is very important to advertise their locality. They know that if buyers can be tempted to come to the town, they will probably find out the individual manufacturers.

6675. That is what I am thinking of. Certain industries are located in certain centres—the woollen and worsted are in Bradford, the silk are in Macclesfield, and so on; they have got that advantage over certain other trades which, like say the furniture trade, are spread all over the country?—Yes, that is so.

6676. Would it not pay those trades which are localised to have a collective exhibit, in order to advertise their own particular locality, much more than it would pay, say, an industry like the furniture industry, which has no particular headquarters?—I certainly think so.

6677. Therefore, it is much more likely to pay Macclesfield and Bradford and Manchester to have collective exhibits, than the class of industry which I have described which has no particular locality?—That is so undoubtedly. Of course, in the collective exhibits you could have the manufacturers' names displayed, which would meet a certain prejudice.

6678. You would not eliminate those, then?—No.

6679. (*Chairman.*) You would have the names?—You could have them.

6680. (*Mr. Wilson Fox.*) I understood you to say in one of your answers that exhibitions have opened the eyes of buyers to the makers, and therefore I presume from that answer that you do attach great importance to having the makers' names upon the goods?—I do; but in the cases you mention, where the industry is concentrated in a district, it is almost as important that the buyer should learn the district as that he should learn the makers' names, because if he takes the trouble to come down to the town he will very speedily find out the names of the manufacturers. I think people realise that now much more than they did.

6681. You have made up your mind, I think, that a collective exhibit, if formed properly, would be a good thing for the district of Macclesfield?—Yes.

6682. I mean from the business point of view?—Yes, decidedly.

6683. Therefore, however patriotic they may be in Macclesfield, as no doubt they are, in showing a collective exhibit they would still have the feeling that it was going to do them good from the business point of view?—Yes, I think so.

6684. Therefore, on the question of expense which has been raised this afternoon, the manufacturers of that district would no doubt be perfectly ready to pay their own expenses?—I think in most cases they would. I do not think in the case of collective exhibits that the question of expense would arise.

6685. Except conceivably in the case of some collective exhibits where there would be no question of making a profit, or very little question; if, say, Great Britain wished to show a collection of minerals, for instance, there would be nothing to be got out of that?—Except, as you say, where individual interest does not come in.

6686. And the same with purely scientific exhibits?—Yes, certainly.

6687. You said that you considered a very valuable

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element in the exhibition of British products was intercommunication; it would not be much use for a large firm to send an exhibit in charge of a caretaker, unless one of the firm went himself to see what was going on?—No, certainly not.

6688. You would not get any intercommunication then, nor any fresh ideas?—No, certainly not.

6689. So that it would entail one of the heads of the firm going?—Yes.

6690. Or their managers?—Yes.

6691. And possibly some of the workmen?—Yes.

6692. In sending to a foreign exhibition, say in Paris, do you think that a manufacturer in the industry with which you are connected sends with the object mainly of getting an export trade, or of maintaining one, or with the object of advertising his goods in this country. Which would be the chief factor in his mind—getting a reputation in this country by obtaining an award abroad, or increasing his export trade in the country in which he was showing?—I think he would have both factors in view, but probable the preponderating one would be to get an export trade.

6693. Then in sending to a foreign exhibition, certainly on the Continent, you would very carefully consider whether you were likely to get an export trade before you went to the expense?—Yes, certainly.

6694. Do you as a rule in the silk trade have agents abroad, or do you have people who travel?—As a rule silk manufacturers have representatives.

6695. That is representatives who have settled in a particular place?—The manufacturers do have travellers sometimes, but they would have their representative in Paris, for instance, or Berlin, who would show their samples and take orders upon them, but who would not be an agent.

6696. Supposing you had got a very active agent who was doing a good business for you in a capital, would you show there, or would you find that a very active agent would be doing all that was necessary for you in that capital?—I think the representative would probably be anxious to show there to advertise himself, or to advertise his wares.

6697. (*Chairman.*) Did you ever send any bodies of workmen to Paris?—We have not sent bodies of workmen, but as a rule we send our managers and head foremen; for instance, we send our loom managers and what are called the tacklers or overlookers to all exhibitions.

6698. And you think it is worth your while to do so?—Yes; they always come back with ideas.

6699. But all the same, I am afraid the silk industry is not an increasing one in this country?—No. Possibly our action has prevented it dying more rapidly than it is doing.

6700. You may have delayed its extinction?—Yes; but it is still alive.

6701. Is there anything that you have not been asked on which you think you could help us?—No, I think not. I think I have said all I have to say.

TWENTY-SECOND DAY.

Thursday, 6th June 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Mr. Harry James Powell, called and examined.

Mr. H. J. Powell.

6702. (*Chairman.*) You are a member of the firm of James Powell and Sons, glass manufacturers, I believe?—Yes.

6703. That is an old-established firm, is it not?—Yes.

6704. I understand that you exhibited in Paris in 1867 and 1878, and that a member of your firm acted as a juror for glass in 1889?—Yes, that is so.

6705. You did not exhibit in 1889?—No, we did not. The Paris Exhibition of 1878 was practically the last international exhibition that we exhibited at.

6706. I think you exhibited in connection with the Arts and Crafts Society at Turin and St. Louis?—Yes.

6707. Was it as part of a collective exhibit both at Turin and at St. Louis that you showed?—Yes. It was run practically by the Arts and Crafts Society.

6708. What was the nature of the goods which you exhibited then?—Artistic table glass.

6709. In 1867, that is 40 years ago, you exhibited stained glass, did you not?—Yes.

6710. Did you exhibit goods of much value?—In 1867 we did. But we found that it was absolutely impossible to show stained glass properly at an exhibition. The showing of stained glass is really opposed to the objects of an exhibition, because in an exhibition you want all the light you can get.

6711. And in order to show to the best effect in stained glass, you do not want so much light?—You do not want too much light, so that it is nearly always impossible to exhibit stained glass.

6712. At any rate, your firm has not exhibited since 1878, except at St. Louis and Turin?—That is so.

6713. Have you had, do you think, any increase of business with foreign countries which you can directly attribute to the showing of your goods at exhibitions?—No, I could not say so. I think it right, perhaps, that I should say that our business is rather a peculiar one. We have very small manufacturing power, and for family reasons we have maintained our works in the City, which is almost an impossible place for works. In many cases where we have made new departures with regard to colours and designs we have not been able to obtain full advantage through being unable to turn out a large quantity.

6714. Whereabouts in the City are your works?—In Whitefriars, close to the Temple. They have been there for certainly 200 years.

6715. Is that your only works?—Yes.

6716. Then you have great difficulty, I should suppose, as to space?—There is great difficulty as to space, as you can imagine.

6717. You tell us that you have experienced disadvantage from having your goods copied?—That is so.

6718. Is that in reference to your stained glass?—No, that is with regard to the table glass.

6719. Then I think you do not attach great value to the awards you have had as a means of developing your business?—No.

6720. Have you had good awards?—Yes; we have had several medals.

6721. Did you have any awards at the St. Louis Exhibition?—No.

6722. Were there no awards given to the collective exhibit that you took part in?—I do not know whether there were any. The system of awards is rather opposed to the whole principle of the Arts and Crafts Society. To a certain extent, the goods for the Turin and St. Louis Exhibitions were selected goods before they were sent out.

6723. So that your award was practically the fact of being selected?—Yes; it amounted to that.

6724. Have you ever bought from British or foreign manufacturers to any considerable extent, as the result of having inspected their goods at any exhibition?—No.

6725. I do not think I have yet asked you whether you have been to most of the recent exhibitions?—I have been to all the French exhibitions, I think.

6726. Then you went to the last Paris Exhibition?—Yes.

6727. Can you tell the Committee of any definite points on which you have derived instruction or knowledge from visiting these exhibitions?—I have seen a good many things to avoid.

6728. I suppose that is useful?—It may be useful in a way.

6729. The comment on that would be—why do you continue going?—I go in the hope of learning.

6730. But you have seen there what to avoid more than what you might imitate?—Yes, and it is useful to that extent.

6731. Now can you tell me the reasons why you have not exhibited for the last 30 years?—As I have already said, it is practically impossible to show stained glass. With regard to the table glass, we found that it did not pay—that is, that the sales arising from the exhibition did not pay for the actual expense of exhibiting.

6732. I should have thought that in America there would have been a demand for very high-class table glass like yours?—There is an enormous duty on table glass.

6733. I suppose it is a duty of 60 per cent.?—It is higher than that, I think. We do send a certain amount there, but we could not trace that to the exhibition at all.

6734. Then you say in your Heads of Evidence that the surroundings at exhibitions were unsuitable; do you mean for your artistic table glass?—Yes. I am speaking now of a large international exhibition, like, for instance, the Paris Exhibition of 1878. There our glass was dumped down amongst all sorts of bottles and medical apparatus, which were unsuitable surroundings.

6735. You say the outside shows attract the wrong class of people?—I think that is so.

6736. They collect the crowds, I suppose?—I think the crowds rather deter the better class of people from going to an exhibition.

6737. I suppose you only want the cultured people, more or less, with a certain amount of money?—Those are the people we should like to draw, certainly; I mean those would be the only people who would be of any use to us.

6738. You have been more successful, you say, in your exhibits in connection with the Arts and Crafts Society?—Yes, that is so.

6739. I suppose the name of your firm was given on your exhibit there?—Yes.

6740. If disinclined to exhibit from a business point of view, would you, with the object of ensuring that British manufactures should be creditably represented among the exhibits of other countries, be willing to exhibit at great international exhibitions in future, provided that some permanent organisation were available which would minimise the trouble and cost to individual exhibitors?—We would exhibit on the lines indicated in my Heads of Evidence.

6741. You say yes to that, then?—Yes, but it would be qualified by what I have said there with regard to the place of the exhibit—namely, that we think the artistic crafts should be included and shown with pictures and sculpture, so that British Art should be represented in all its branches. This means organisation by competent artists and craftsmen.

6742. In a word, you want your beautiful glass to be shown with pictures and sculpture?—Yes. That is done at the *Salon* now.

6743. In fact, you want a class where Applied Art should be well represented and kept well apart from the rest of the exhibition?—I think there should be practically what you might call an Arts and Crafts section, and I think it should be run on the lines of the St. Louis Arts and Crafts exhibit—that is, that the exhibits should, to a certain extent, be selected exhibits.

6744. Whom would you get to select them; whom would you be satisfied with?—We were perfectly satisfied with the arrangements at St. Louis. Walter Crane was practically the leader of the Committee.

6745. He is intimately connected with the Arts and Crafts Society, is he not?—Yes.

6746. If that society or those sort of people were well represented on the managing committee or commission, your object would be served?—We should be quite satisfied as long as there were some people who, we felt, were in sympathy with our class of work, and were capable of understanding and appreciating craftsmanship.

6747. Have you found that—I mean, have they been unsympathetic to you in any way that you can tell us?—I judge, to a certain extent, from what happened when I acted as juror. The bulk of an exhibit seemed to be considered its most important feature.

6748. Surely it is, is it not, to secure beautiful things as well?—No; I think that is a secondary feature. They want spacious exhibits, and the awards, as far as I could judge, were almost entirely regulated by the expense of the exhibit.

6749. By the expense of the exhibit?—Yes; of course it was right, to a certain extent, that the people who had laid out a very large sum of money should get some recognition; but, generally speaking, certainly the best things did not get the best awards.

6750. Was that your experience in Paris in 1889, when you were a juror?—Yes.

6751. How would you propose to remedy that?—The only way to remedy it would be that the awards should be given by a strong committee in sympathy with the work judged.

6752. You want to get some people on the management in sympathy with the Applied Arts, in fact?—Yes, exactly. As far as my experience goes, the exhibitions have been run as commercial affairs, and the great thing has been to make a big show—to fill the space, and to make the place look attractive and smart, but sufficient attention has not been given to attracting the very best work.

6753. You would like to make them look pretty, too, would you not?—Yes, but in rather a different way.

6754. You do not find fault with having rather a florid decoration of the court, for instance, do you?—No. What I mean is that too much attention has been given to securing bulky, impressive exhibits, and too little attention to securing a high average of quality.

6755. You would not keep out pyramids of bottles and mustard tins, would you?—No, you cannot do it. What I advocate is that there should be a separate section for artistic crafts.

6756. It comes back to that?—Yes; for instance, if my stand was placed next to a pyramid of bottles or mustard tins, my exhibit would suffer, because you would not expect to find anything artistic in that sort of relationship.

6757. Are there great developments going on very much in your class of manufacture? Have you got fresh creations continually, or do you keep very much to the old models?—We practically exist on fresh creations; we should not exist at all without them.

6758. You are quite an artistic firm?—We try to be. We are perpetually turning out new things, but of course they are always based on the best models, and the best models really are the old ones.

6759. You have to go back to the old ones, more or less?—Of course, you must go back to Rome and Venice and Greece.

6760. How do you bring your fresh creations to the notice of the buying public?—We have a very large connection. Our business is practically a private business, and we do not attempt to sell wholesale at all.

6761. Don't you sell wholesale?—We do not make any point of it.

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6762. You sell to shops, do you not?—Very little. People come to us.

6763. How many men have you in your works?—We have about 200 altogether.

6764. And that production you can sell to private consumers only?—Yes, and of course we get better prices.

6765. You do away with the middleman's profits, I suppose, for you take that?—We have nothing to do with middlemen. We cannot give them the discount they ask for.

6766. You could not afford it, I suppose?—We could not afford it. Besides, I do not think we want middlemen. It is very much better to deal direct with the consumers.

6767. Do you do much with your stained glass now?—Yes, a great deal. That is the larger part of our business.

6768. So you have a connection amongst ecclesiastical architects?—Yes.

6769. Do they come to you?—Of course the person who wants a window comes to us in the first instance.

6770. On the whole, would you desire to see international exhibitions about every five years or ten years or less?—It would entirely depend upon how they were run. If they were run simply like the last Paris Exhibition, for instance, I should say, "No."

6771. Do you not think the last Paris Exhibition was creditable to us?—There were very few British exhibits. Even if we went back to 1878, I do not think it was any use.

6772. (*Mr. Algernon Law.*). When you spoke just this moment of the last Paris Exhibition, did you mean the exhibition of 1889 or the exhibition of 1900?—The exhibition of 1900; that was the last one.

6773. (*Chairman.*). Did you see that?—Yes. I do not think that was any use at all.

6774. Not in regard to the articles you are interested in?—No. You would have to go back, I think, to 1851. That is rather before my time, but one has traditions of the exhibition of 1851; of course that was purely and simply an exhibition.

6775. You would probably think that the articles in the exhibition of 1851 were very ugly if you saw them now?—Yes. We have some of ours left. Still, they were the best of their kind then.

6776. (*Sir Isidore Spielmann.*). You have told us in the course of your evidence that stained glass cannot be properly shown at an exhibition. I have been referring to the report of the St. Louis Exhibition, and I there find this observation in it:—"Permission was obtained from the authorities to cut out glazing bars where wanted, and to insert the panels of stained glass in the windows themselves. More examples of stained glass would have been very welcome, since those we fixed had a very decorative effect." Was it not rather a pity that you did not exhibit stained glass at St. Louis?—Not on those lines. The stained glass may have helped to decorate the building, but I do not think the stained glass itself could have been shown to advantage.

6777. But is not the way to show stained glass, to show it as windows? You see at St. Louis they had to remove the windows to put in the stained glass exhibits?—It is a question of lighting; in your exhibition building you want to get a mass of light inside.

6778. The organisation of the Arts and Crafts Section at St. Louis was under the direction of Mr. Longden, who was deputed by Mr. Walter Crane to fix these things, was it not?—Yes.

6779. You could not have had any better conditions than those, could you?—I did not go to St. Louis, and I really do not know what was done with the stained glass there. I am going more on the show in Paris at the two last exhibitions there.

6780. I only mentioned this fact because you told the Chairman that it is impossible to show stained glass at exhibitions?—It is my belief that it is impossible, unless you have rooms specially set apart for it. In the Salon of Paris they have an arrangement under the galleries for showing stained glass; the light is subdued, so you can see the glass fairly well.

6781. The photographs of the Arts and Crafts Section showing the stained glass windows which were sent from St. Louis are certainly most effective in appearance?—I would like to make another point. Another great difficulty is that one stained glass window kills another one; if you have got two stained glass windows of two entirely different styles, the one would absolutely destroy the effect of the other. They may be both admirable specimens, but if you get them side by side, with no division between them, they would be destructive of each other.

6782. But with people who understand installation that would not be likely to occur, would it?—Yes, it would. You do not want to look at the two at the same time. You can see in almost any of our cathedrals how entirely one window may destroy another.

6783. In the early part of your evidence you said you do not care to exhibit because you get your goods copied, and later on you tell us that you approve of exhibiting in the Arts and Crafts section. Does not the same fear occur in both cases, whether you exhibit in the Industrial section or in the Arts and Crafts section?—If you get a large Arts and Crafts section, you attract to that section the people who would be useful, and therefore you get a result which counterbalances your loss by copying; but if you exhibit merely as an item in one mass of commercial exhibits, you do not get that advantage.

6784. At St. Louis, as you know, the Arts and Crafts section was in the Art Palace, with pictures and sculpture?—Yes.

6785. That is the way you would like to exhibit?—I think that is the way our goods should be exhibited.

6786. Did you exhibit at New Zealand?—To a very small extent.

6787. You have sent exhibits there, then?—Yes.

6788. I believe Mr. Walter Crane organised the Arts and Crafts section for it?—Yes. We sent a small exhibit.

6789. Are you a member of the Arts and Crafts Society, may I ask?—Yes.

6790. (*Mr. Harris.*) May we gather, as the result of your evidence, that practically, as a matter of trade and as a matter of business, you do not look upon exhibitions as having very much utility?—I should not like to say that. I think that exhibitions run on the Arts and Crafts lines do have a certain utility.

6791. That is a point I want to get. Run on the Arts and Crafts line have they a value as regards the individual trade as well as a value as regards the general industry of the country?—Yes, I think they have.

6792. So that you, exhibiting as part of an exhibit of the Arts and Crafts Society, feel that you personally are gaining something by it?—Yes. My own feeling is that when working for one of these exhibitions one naturally makes an effort to do something creditable, and I think that it is a very good thing that there should be an incentive of the sort you get when you know that your work is going to be appreciated, as it is appreciated in an exhibition which is set apart for artistic crafts.

6793. Then probably you would not go so far as to say that you would be glad to see exhibitions done away with altogether?—I should not say that, certainly. All I wish to get rid of is this heterogeneous jumble of all sorts of things without any consideration for their artistic merits.

6794. Do you not think that difficulty could be got over by organisation?—I do think so.

6795. Apart now from a special Arts and Crafts exhibit, could not that difficulty have been got over by organisation?—It evidently was got over at St. Louis.

6796. At St. Louis I think there was an Arts and Crafts exhibit?—Yes. We need not call it Arts and Crafts, but the organisation might be on those lines. If you had an organisation on those lines, I think it would practically get over all the objections.

6797. Take the case now where you grumbled at your unsuitable surroundings; was that not at Paris in 1878?—Yes.

6798. Did a firm like Salviati exhibit at that time, as far as you can remember?—Yes; but then they exhibited in the Italian Court.

6799. Were they free from the difficulties which you found yourself faced with?—No; they were under just the same disadvantages. They were dumped down next to maccaroni and those sort of things.

6800. So what you say for yourselves you could say for them?—Yes, quite so. All you really want is more classification.

6801. You spoke to the Chairman about bulk, and we will take an instance from glass generally. Do you suggest that the sort of thing that pays is a great pyramid of port wine bottles, as against a fine exhibit of highly-wrought Venetian or British glass?—Pays whom?

6802. Pays the exhibitor, and attracts attention?—What I meant to say was that it appears to me that what the people who are responsible at exhibitions have courted is rather these bulky pyramids, which take up space and make a show, than the better work.

6803. As a matter of fact, are you not rather overpushing that?—No, I do not think so.

6804. (*Mr. Algernon Law.*) Did you notice any difference in the organisation at the Paris Exhibition of 1889 and at the Paris Exhibition of 1900? At the exhibition of 1889 the British organisation was the result of voluntary effort, started by the Lord Mayor of London, whereas at the Paris Exhibition of 1900 there was a Royal Commission. Did you see any difference between the results of the two?—In 1900 the result was small; very few English manufacturers exhibited.

6805. That is, speaking generally?—Speaking generally, the exhibit was insignificant.

6806. Of course you saw the Royal Pavilion at Paris in 1910?—Yes.

6807. Would that not have been suitable for the exhibition of your glass?—Yes, that would have been very suitable.

6808. Was no suggestion made to you then to send glass to be fitted up in the pavilion?—No, I think not.

6809. Was there any stained glass in the Pavilion?—Yes, there was a little, but not very much. Stained glass in the ordinary sense was not very suitable to the style of the building.

6810. You mean in that particular building?—Yes.

6811. But if it had been a Tudor or a Gothic pavilion, would that have been suitable?—Yes. As a matter of fact, in 1878 we did all the glass in what was called the Prince's Pavilion—both the table glass and the stained glass.

6812. And the effects of lighting and all that were quite satisfactory, then?—Yes.

6813. So your case would really be met if you could be accommodated in the Pavilion?—Yes, because there of course you get the effect of separate rooms, where the light is more or less subdued.

6814. You could not have a Tudor domestic building or a Gothic building without stained glass to make it complete, could you?—By stained glass one usually understands ecclesiastical stained glass. Tudor stained glass would be a very different style; but you could have perfectly suitable stained glass for a Tudor building, and it would look perfectly right. When I was speaking of stained glass. I was referring more to ecclesiastical stained glass.

6815. If there was a baronial hall built, that would almost meet the case as well as an ecclesiastical building, would it not?—Then probably you would have an armoral window, which would look perfectly suitable and exceedingly well.

6816. (*Mr. Malcolm Ramsay.*) I gather that you have not exhibited very often at international exhibitions?—No; we have not exhibited since 1878.

6817. I regret that I was not able to be here at the commencement of your evidence; perhaps you have told the Committee why you have not exhibited more frequently?—Our experience at the Exhibition of 1878 was that the cost was out of all proportion to the results. Of course, it is a very expensive business to make a show at an exhibition.

6818. (*Chairman.*) I do not think you did tell us what the cost was in 1878; I do not know whether you have got it in your memory?—I am afraid I could not tell you offhand, but it was very considerable.

6819. Did it run into thousands of pounds?—No, I do not suppose it did. I do not wish to pin myself down to any amount, but at any rate we certainly did not reap any profit.

6820. (*Mr. Malcolm Ramsay.*) Then your experience has been that as a business investment it is not profitable?—It was not in that case.

6821. And is that mainly why you have given it up?—Yes.

6822. If we had a better organisation in the future, would you be inclined to take part in future international exhibitions?—If the organisation is on the same lines as it was with regard to the St. Louis Exhibition we should be quite willing. There, you see, glass was placed in its proper surroundings, or what were, from my point of view, its proper surroundings.

6823. I take it the question of expense would not deter you in that case, if you thought your exhibit was going to be done justice to as an artistic exhibit?—In that case I merely exhibited as one of a number of other craftsmen. In that way the expense is considerably reduced, and also you secure that the things are properly placed, and are made the best of. One would make a comparatively small exhibit, too, in that case.

6824. It reduces the expense, and increases the effectiveness of the display you make?—Yes; because you are in the right surroundings. You will understand that if you have a general heterogeneous exhibition, and if you want to make a show at all, you must make a very big one, otherwise it is absolutely lost.

6825. Have you formed any opinion as to the frequency with which we might participate in international exhibitions?—I have not considered that. Our Arts and Crafts Exhibitions in London are held every three years, and I think that is almost too frequent; every five, or even ten years would be sufficiently often.

6826. Assuming that your particular lines were included in a proper collective exhibit, would once in ten years be a sufficient interval?—I think once in ten years would be sufficient; I should think once in five years would be a little too often.

6827. Every five years would be too often, in the sense that the public would get tired of frequent exhibitions, and also because it is a great tax upon your time and energy?—Yes.

6828. (*Chairman.*) In your heads of evidence, in answer to our eighth question, you say outside shows attract the wrong class of people; you do not seem to attach any importance to the educative value of exhibitions—that is, to the advantage to even the wrong class of people of seeing your beautiful glass and other beautiful things?—They did not look at them.

6829. Do you think they would not look at them?—I think they all go through to the water-chute and that sort of thing, and that they do not look at the exhibits at all.

6830. Do you not think, speaking generally, that people's taste has improved in the last generation?—I am afraid I cannot say so; I do not think it has.

6831. You are still a pessimist in these things?—I am almost sure it has not really improved. There is a great taste for cheap imitations; but really for genuine good work I do not think the taste has improved. It is very disappointing.

6832. Have you not got a larger number of people who are cultured and know beautiful things and nice things than you had—people who come to your Exhibitions of Arts and Crafts, say?—It is difficult to say. I suppose there would be a larger number; but if you consider the growth of the population it is disappointing.

6833. You do not think it is a large percentage?—No.

6834. Then you do not think that exhibitions have had any effect in improving the public taste from that point of view?—I do not think they have. The influence certainly has not gone very deep.

6835. But it may have had a slight effect?—Yes.

6836. (*Mr. Malcolm Ramsay.*) Is it your opinion that the majority of the visitors go to these big international exhibitions for purposes of amusement rather than for purposes of education or of business?—That is my impression. If, as at Glasgow, there is a very good show of pictures a different class of people is attracted to that particular department and enjoys it; but still the bulk of the people went to the water chute and the side shows.

6837. (*Chairman.*) I was at Glasgow myself?—There was a magnificent show of pictures there, and they drew to that show a large number of quite the people one wants.

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6838. You do not infer, do you, that the people up there, the Scots, are superior to us in taste?—I do not mean to imply that, but they certainly succeeded in getting together an exceptionally interesting collection of pictures and sculpture.

6839. (*Sir Isidore Spielmann.*) You sometimes see in the industrial section of an exhibition most artistic exhibits. Referring again to the St. Louis Exhibition, Minton's and Doulton's had very large and very beautiful exhibits; the public went there, and their sales, I believe, were very extensive. Would you object to being in the industrial section in company with two such firms?—I should be unwilling under any conditions, to exhibit in the industrial section.

6840. Your sales were not insignificant either, I fancy, at the St. Louis Exhibition?—In itself the exhibit was very trifling, of course, but considering the amount shown, the result was satisfactory.

6841. The official report states that?—Of course we only showed a very small amount.

6842. It was not a large exhibit, I see; you sent about 70 to 80 pieces, and you sold the majority?—About half.

6843. (*Chairman.*) At good prices, I hope?—Yes, they were fair prices.

6844. (*Mr. Malcolm Ramsay.*) Did you get any business with America as the result of the St. Louis exhibit, or did the duties keep you out?—Indirectly we may have done, but I could not trace it to the exhibition. There is a certain class of Americans who will always have really good table glass, but as a rule I should say the American taste was most lamentable. Of course we are very much shut out in regard to all ordinary table glass by the tariff rates.

6845. (*Chairman.*) We have been told in the case of other high-class goods that the customs duty has not so much effect as it has in the staples which can be got anywhere. The people who buy your goods would be people to whom money is not always an object, would they not?—That is so, but combination of taste with money is exceptional.

Mr. Edward James Crosier, called and examined.

Mr. E. J. Crosier.
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6846. (*Chairman.*) You are a member of the firm of Messrs. Crosier, Stephens and Co., of Newcastle-on-Tyne, I believe?—Yes.

6847. What exactly is your business?—We are engineers, not manufacturing on our own account, but representing several manufacturing firms; for some we have the sole agency for Great Britain, for others the sole agency for the north of England.

6848. Do you act only for British firms, or do you represent foreign firms?—We represent certain American firms also for things that we cannot get here.

6849. You have taken part in several exhibitions in this country, I believe?—Yes.

6850. But you have not exhibited at any international exhibition abroad?—No; but my principals have, and I have visited the exhibitions, at all events.

6851. Which exhibitions here have you exhibited at?—We have exhibited at several in the north of England—at Newcastle, Sunderland, Middlesbrough, Glasgow, and Manchester.

6852. The Manchester Exhibition of 1887?—Yes.

6853. And the Glasgow Exhibition of 1801?—Yes. Then we have also exhibited in London—last year.

6854. You have exhibited chiefly labour-saving tools and appliances, I think?—Yes.

6855. Each ranging in value from £20 to £500?—Yes.

6856. Have you had any increase of business with foreign countries which you can attribute to exhibiting your goods?—Yes, after a long interval—not always immediately.

6857. Did you exhibit those under your name, or under the name of the makers?—Latterly under our own name.

6858. Then you are allowed to do that by the makers of the goods?—Yes.

6859. So that you have got certain rights and you take the responsibility of that?—Absolutely. Many of our customers do not know but what we are the manufacturers.

6860. Are many of these things made to your order?—What do you mean by that, Sir?

6861. I mean by "your order," whether you have a voice in the scheme of the tool or machine that you are showing; in other words, whether you have anything to do with its design?—Yes. A machine which will be advertised in the engineering papers in about a fortnight in our own name is our own design entirely.

6862. Have you had any disadvantages in having your goods copied by foreign competitors?—Yes; but perhaps we get wrinkles in return. We cannot shut our eyes to what they exhibit.

6863. Have you had awards at exhibitions?—Yes.

6864. Medals?—Yes, gold medals.

6865. Have they been of advantage to you?—I do not think we attribute very much value to them.

6866. Do you put the medals on your business cards?—We sometimes have put them on circulars.

6867. But except the Manchester Exhibition, which was large, and the Glasgow Exhibition, I suppose the exhibitions you have exhibited at have been rather small?—The Newcastle Exhibition in 1887 was fairly large.

6868. Have you ever bought, or been induced to buy, from British or foreign manufacturers as the result of having inspected their goods at any exhibition?—Yes.

6869. In one of your letters I see there is a criticism of an award of a certain prize to Messrs. Lipton?—That is not my criticism, that is from a newspaper, but I endorse it. If I may revert to your question about purchase, we saw a machine at Liège, and have since purchased about 100 of those; at the Gas Exhibition at Olympia two years ago we saw a machine, and have since purchased and sold about 50 of those; and at an engineering exhibition at Newcastle in 1893 we were introduced to a firm from whom we have since purchased goods to the value of £12,000 or £15,000.

6870. Are there any definite points on which you have derived instruction from visiting exhibitions as a manufacturer and so on?—Yes.

6871. Do you go to exhibitions besides the ones you exhibit at?—Yes.

6872. Did you go to the Paris Exhibition in 1900?—I did not get there.

6873. Did you get to St. Louis?—No, I was not there.

6874. Then as to questions 8 and 9, which you propose to take together, I gather from your heads of evidence that one of the great reasons why you have not exhibited at all these great international exhibitions has been the amount of money involved?—Yes.

6875. Because, amongst other things, you would have to have the attendance of an expert to explain the exhibit?—Yes.

6876. Was it the case that you were very busy, and that you could not spare men to attend these exhibitions?—We find, as I have mentioned in one of my letters, that you want a really good man at these stands, and we find that to send a really good man takes him out of his ordinary work and throws things rather out of joint. Perhaps I might just give an illustration of the importance of having a good representative. The present Mayor of Tynemouth and another gentleman and myself were very anxious to see certain machines at Liège. The Mayor of Tynemouth speaks German and his friend speaks French, and we got along very well till we got to the stand where these machines that we were most of all anxious to see were placed. There was a man in charge of the stand, and my friend the Mayor tried him with German and the other man tried him with French, and I tried him, but he could not understand. Then it just happened that a man from Dewsbury was going past, known to the Mayor, and he hailed the man. He said "Can you make this chap understand?" The man in charge

spoke Flemish, I think, and as it happened so could this man from Dewsbury.

6877. The man from Dewsbury could speak Flemish?—Well, at all events he could make the man in charge understand. He said, "What do you want?" I said "If you will just tell this man to operate these machines in turn in dumb show that will tell us all we want." So the operator put the machines through their facings in turn, and that was all we wanted to know. But if that man could have spoken English, it would have been very much better.

6878. That illustrates your point that you have to have a man who is competent in several languages?—Yes.

6879. Is not the expense of transport a great item?—It is very great, especially with heavy stuff.

6880. You get a certain allowance generally on the railways of the foreign country where you exhibit, do you not?—Yes, you do get facilities of that sort.

6881. As you have not had any experience in showing or placing your goods at these large international exhibitions, you cannot tell us of any improvements that we can make in organisation there, I take it?—Yes, I think I can. I think if in the British section they provided lifting tackle and that sort of thing, even supposing they charged the individual exhibitors the actual cost, it would be very much appreciated. I remember the difficulty we had in placing our goods at the last Engineering Exhibition in Newcastle. I should think we could have saved 25 per cent. or 30 per cent. of our labour cost if there had been over the machinery hall a travelling crane. We simply had to get men with all the most primitive appliances, and do the best we could. I am quite satisfied that it would have saved us 30 per cent.

6882. Then the organising Commission, or whatever it is, should always try and arrange to have labour-saving appliances for moving the goods from one part of the exhibition to another?—Yes. You would very likely find some crane-maker would be only too pleased to put a crane over the section at a very low cost, for the sake of the advertisement.

6883. That brings me now to your suggestions for improvement in organisation. You attach importance to showing your machinery in operation, naturally?—Yes. I saw a machine in London yesterday, and at one glance, as soon as they set it in motion, the friend who was with me and myself appreciated the whole thing—on the instant. We could not have done that if it had been still.

6884. I suppose even you, with your technical knowledge, find it is very difficult to appreciate a machine that is not in motion?—Yes, that is so. But we saw it on the instant as soon as ever it was set agoing.

6885. For that purpose you suggest in your heads of evidence something rather outside what we have got to consider; you suggest a floating exhibition?—Yes I thought I would mention that as I had it in my mind.

6886. There have been floating exhibitions, have there not?—I do not know whether this one in London which we were asked to take part in has become an accomplished fact or not. I have not read of it.

6887. You cannot give us your experience of your relations with the governing body of an exhibition, can you?—That is getting on to rather delicate ground. As a matter of fact, I asked my people to turn up the correspondence which I had in mind when I wrote to you, but perhaps it is just as well the letters could not be found. They were very unsatisfactory indeed.

6888. Unsatisfactory?—Yes. It was just as if an office boy had been turned on to it, or a public school boy who knew nothing about business at all. It involved sending a man and a considerable amount of expense, whereas an ordinary business firm getting that same request would have done what we asked.

6889. What was the exhibition at which it occurred?—That was in connection with Liège.

6890. What was it that you wanted?—I forget now exactly what the request I made was. I wanted them to go to a certain stand and ask a question, I think—a very simple thing; but I got a very silly reply.

6891. You did not get a businesslike reply?—No, nothing at all like that.

6892. Was that the only communication you had with them?—No, I wrote a second time, and got no answer at all.

6893. Then you have some suggestions to give us for making exhibitions more successful. To a certain extent it is one of the matters of detail for exhibitors to invite people to come and see their exhibits, and send them tickets of admission; but has that ever been done?—Yes; it is done at all these trade exhibitions.

6894. At an ordinary trade exhibition it is done, would you say?—Yes.

6895. You believe in getting the greatest number of people at an exhibition?—Yes. You never can tell at your stand who the man is. The very best men are most careful to conceal their identity, from this feeling, "Now if I give Crosier, Stephens a card they will be sending their traveller to pester me for an order." So the very best men will conceal their identity, and sometimes we may spend a long time talking to a man who is no use to us whatever, and then another man comes up, equally unknown to us, who may be very useful. A leading man of Armstrong's, for instance, spent a long time at our stand one night, and none of our fellows knew who he was until I went up and shook hands with him. He purposely kept his identity quiet lest we should trouble him. But as a result of that visit we got an order about two months later for a machine. So the maxim is to be courteous to everybody, and take your chance of an after-result.

6896. I see you praise the work of the Canadian section of the Liège Exhibition?—Yes. Just three days ago I had a letter from the Commissioner in Dublin asking me to go over, in which he said that if I would go to Dublin I would find things even better than at Liège.

6897. Was that letter from the Commissioner of the Canadian section?—Yes.

6898. Then you go on in your heads of evidence to say that in 1891 a young firm spent £800 at an exhibition, and seemed to have done very well out of it?—Yes. That was my own firm, when we started, but I did not like to put it in that way.

6899. I rather gathered that it was; at any rate, I hoped it was?—In the case of the second exhibition to which I refer, I had to go away on the Continent for a rest, and when I got back the promoter of the exhibition said it was a very big shame—he put it more strongly than that—that when my back was turned the fellows had not attended to the stand; so that the result from the first was very much better than the result from the second.

6900. I do not know whether you have considered at all the nature of the organisation that we should have. Do you think that a Royal Commission is the best form of organisation for a large exhibition?—How can I express myself without being ungracious?

6901. We do not mind; we want your opinion?—My own opinion seems to be backed up by the various cuttings and quotations which I have sent to you—namely, that business men would have more confidence in a commission if on that commission there were definite business men. But then the difficulty is to give a sufficient inducement to these business men to give the time to it. I certainly should not encourage the spending of national money for the direct helping of exhibitors. I think each exhibitor should bear his own expenses. I should say let the commission of the British section offer all the facilities that they can at cost price, as it were, such as the handling that I speak of. If I am going to exhibit at Boston, or wherever it may be, and I tell the Commissioners there I want so much space, I want labour, I want lodgings for my men, I want printing done, I want my catalogues translated into the language of the country—I think it would be very good if the British Commission would help me to get these things done at a reasonable price.

6902. And you would pay the cost?—I would pay the bare cost.

6903. You would want a very good organisation, in fact?—Yes.

6904. Which, of course, costs money?—Let us stand on our own feet, but you help us to buy in the cheapest market, so to speak. That is all we want.

6905. Do you think you could get a business man as head of the Commission who would be acceptable?—It would be very difficult.

6906. Because a business man who is in active work

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could hardly give his time?—That is just what we say in business—the man you want for a department is not out of a job. I want a man now, but I cannot find just the man I want.

6907. You want to have many good business men on the Commission or Committee, do you not?—Yes. Take Armstrong's, up our way. Supposing they were going to take part in an exhibition, they would want a big stretch of space, and their interest would then become the common interest of all the exhibitors. I should say that a representative of Armstrong's firm could come on to the board or on to the committee—arrange it according to the people who take space.

6908. Put them on if they were given a big space, do you mean?—No. Supposing there were an exhibition organised, and Armstrong's applied for space, they would want a good stretch, and supposing you said to Armstrong's, May we nominate your Mr. Saxon White, or your Mr. Brackenbury, or your Mr. Somebody Else as an honorary member of our committee, or an advisory member of our committee; then you can co-opt him, or bring him on in any way you like.

6909. You do not want exactly honorary members—you want working members?—Yes, you do want working members.

6910. You would not object to rather a different stamp of man as the Commissioner, I take it, as long as you had plenty of good business men, working men, on the Commission?—That is so. I quite see that you would have to have a certain class of man for the Commissioner, and then he would co-opt or in some way secure the assistance of business men.

6911. I suppose you think it would be an advantage to have the staff formed more or less of people who are experienced in exhibitions?—Yes.

6912. (*Mr. Algernon Law.*) Were you invited to exhibit at Paris in 1900?—I had not started business on my own account then.

6913. Were you invited to St. Louis?—Friends of mine were exhibiting at St. Louis, but I did not have an opportunity of going.

6914. I see you say that for the last 34 years you have been associated with leading firms who have had experience of exhibitions?—That is so.

6915. Were these leading firms with whom you were associated invited?—Yes.

6916. Were they manufacturing firms?—Yes.

6917. You say in your heads of evidence that an exhibition under present conditions means a serious disruption of ordinary business routine at headquarters; what conditions do you suggest to overcome that difficulty?—When I mentioned the floating exhibition, I had that in mind. One could then depute a man to practically spend his time continuously at the exhibition.

6918. That is a matter of personal arrangement?—Yes. At the Electrical and Engineering Exhibition at Olympia last year, what I did was to send one of our men down permanently, our London man was there every night, and then other members of the staff took a week in turn. It was open for four weeks.

6919. How do you suggest that this committee or commission should be selected? Who should start it? Should the Government make the initial selections, or should they be left to a chamber of commerce? The London Chamber of Commerce has suggested that they would be a good body to commence an organisation?—The London Chamber of Commerce is very good, and I think I may say that the chambers of commerce seem to be getting much more practical and active every day now. I know that in Newcastle—where we have just lost our president, Sir Charles Palmer—they are very active now, and so is the Sunderland Chamber of Commerce. On those you have very good men, and I do not know any body of men from whom you could get better assistance.

6920. But you would not leave it in the hands of one particular chamber of commerce to organise the body, would you?—No, I do not think we ought to do that. Then I think such a body as the Institution of Mechanical Engineers ought to be represented.

6921. And the Iron and Steel Institute?—Yes.

6922. (*Mr. Harris.*) You have referred especially to exhibiting labour-saving tools and appliances; are we to understand that you have made a sort of special study of them, both in your own business and in those with which you are connected?—Yes, that is so.

6923. You have not merely selected these for exhibition out of a larger quantity of general work?—No. We have specialised for the last 20 years in economising appliances and labour-saving appliances for engineers.

6924. You have referred to buying certain machines abroad, and selling so many of them again; was that of any direct advantage to British trade? Can we say that you at an exhibition picked up a machine which has really helped your business or the business of the British manufacturer? Was it not merely an agency matter?—I am afraid I do not quite catch your point.

6925. In reply to the Chairman, who asked you whether you had ever seen tools or appliances at other exhibitions which had been of use to you, you said, Yes, we have bought machines abroad and have sold several since?—That is so.

6926. Was the buying of those machines any advantage to British trade? Were you not merely acting as agents for a foreign trader?—It has worked out to the advantage of British trade in this way—I will tell you quite frankly. We quite thought we had got the sole agency for Great Britain, but after we had been at work a month or two we found that another firm had also got the sole agency for Great Britain! As we offered these machines from time to time, we were asked for a little variation. We were asked to make the machine so that by putting in packing-pieces it would cut three inches deeper. The reply we got from the makers was, "We are so busy in turning out our standard machines that we cannot make any departure." That meant that for certain purposes—particularly for sending into the engine-rooms of steamers, so that they could do certain repairs afloat, instead of waiting till they got to a repairing shop in port—this machine was no good. Our friends, rough and ready men up North, said "This is no good; but if you can take it three inches deeper we will have it." Following on that we got a letter two or three weeks ago from a firm in Paris, offering this machine—the original machine. So we wrote to the makers again, and they wrote to us, "We cannot help it; we sell the machines, and we cannot say where they go." The outcome of that is that we are having made for us in this country an improved machine which will meet our friends' requirements, and therefore we shall get less and less from abroad and shall supply English tools. We sent the week before last three of these machines to India, I have this morning sold one for New Zealand, and so on. So it works round. We lose one day by the foreigners pirating us, and we learn something from them another day.

6927. You have not apparently had much experience of the international exhibition as opposed to the local exhibition?—In my own capacity, no; but as representing some of the very best engineering firms in the country I am constantly having a chance of chatting and comparing notes with them. I have perhaps a better idea than if I had been all the time just with one firm.

6928. Have you formed an opinion as to the value of an international exhibition as an advertisement of British trade?—Yes.

6929. Will you give it to us?—If I had sufficient capital I should exhibit at every international exhibition which was centrally situated and accessible; that is, on the line of traffic, providing I had something to show which would appeal more to buyers if seen in operation than on paper.

6930. You attach great importance to the machinery being in operation, evidently?—Yes.

6931. I take it that in the case of one of the sections—at Paris, I think it was—where they had dead machinery and live machinery, side by side, you would say that the advantage to the live machinery was tremendous?—Yes, absolutely. The first question with me would be, What have I to show?

6932. Do you mean, Have you a novelty?—If I got a prospectus of an exhibition, and if I were able to exhibit there, I would think, What have I to show that is novel?—novel either actually or novel to that market. Now shall I show it? Then if I decide to show it, I want the best position I can get, I want the machine in motion, and I want the best printed

matter in English and in the language of the country; then I should want the best representative I could have, and if I could spare time I would put in a good deal of time myself.

6933. How came you to have so much knowledge of Liège? You were also there, I gather?—Yes. If I must blow my own trumpet, I am the originator of the Junior Chamber of Commerce up in the North. It is really a commercial debating society, and it was started as a commercial debating society. I was going to give them a lecture on Liège, so besides going there and looking very carefully into things, I got a press-cutting agency, to which I subscribe always, to send me all cuttings about Liège. But I never found time to prepare the lecture, so when your circular came before me what I had prepared for one thing came in handy for the other.

6934. You did not actually exhibit anything at Liège yourself, did you?—No; but we were selling appliances that were exhibited there, for instance, Messrs. Green's fuel economiser. The man they had in charge spoke four languages. Whenever they take part in an exhibition on the Continent this particular man goes, so he is employed continuously on that very work if there are exhibitions, and he gets *au fait* in exhibition work—both in the erection and in the demonstration, and in attending to the stands.

6935. In fact, he appears to be a sort of special traveller charged with exhibition business?—Yes.

6936. And that is quite a part of the ordinary business of the firm?—To some extent.

6937. Could you explain what struck you so much in the Canadian section at the Liège Exhibition?—The personal element.

6938. It was the personal element?—Yes, undoubtedly. In this letter before me the Commissioner has given me information. I remember certain other information he gave me, but it has lain dormant until now. In regard to this particular bit of information in this letter, I told him that I was interested in this thing, and he says, "I have written to So-and-so, of Nova Scotia, asking them to write," and so forth. This letter contrasts very strongly with the letter I had from the British Commissioner at Liège.

6939. Still on the personal element, you referred to having certain paid agents who did not do your work when your back was turned at a particular exhibition which you mentioned to the Chairman?—That was so.

6940. Those were not, I take it, your own men, they were strangers, were they not?—They were my own men. At the last exhibition, a comparatively small exhibition, at Newcastle last year, my two sons were of great help to me. They just did it for the hobby. Incidentally I may say now that all my men are practically partners, as I give them a liberal share of the profits, and so the conditions are altogether different to-day.

6941. That is since this incident?—Yes. We have profit-sharing now, and the conditions are altogether better.

6942. You illustrated an answer of yours to the Chairman by referring to Messrs. Armstrong's man, and you suggested that supposing Armstrongs took a big space they should appoint a man who might be taken on to the Commission?—Yes, I did.

6943. Does it not occur to you that you might have to deal with this difficulty—that Armstrongs' man would be really looking after Armstrongs' interests and not yours?—But would he not have a big stake? The amount that you pay for space at an exhibition means that you are committed to spending a certain amount of money, and supposing their space was costing them £300, he would be looking after the interests of their £300 and also the interests of the other man who is only spending £30, because any facilities that he got for Armstrongs', I suggest, would be equally available for the little man spending only £30 on space. That was the idea I had.

6944. I do not quite follow you. Do you not think that the tendency would be to neglect the little man and to look only at his own work?—That is where we would expect the parents of the thing, the Government nominees, to keep things right.

6945. You do then recognise that you might have to deal with the difficulty of trade jealousy?—Yes. I may tell you that a partner of mine was a partner in an exhibition yeras ago, and I think that we got the best space in that exhibition.

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6946. (*Mr. Malcolm Ramsay.*) I gather that your view—which is not merely your own personal view, but is given as representative of engineering opinion—is that international exhibitions do promote the export trade in this country?—I think so.

6947. You are clear on that point, are you?—Yes.

6848. Do you think that international exhibitions are equally suitable as an advertisement for all our leading trades?—I was thinking about that. Take things like the textiles, where you can carry a sample in a portmanteau and look up your customers: I am not always sure that they gain by international exhibitions. I was talking this morning with a man from New Zealand, and he was very strong on the personal element. "For any soft goods, or light goods, that could be carried round, get a good traveller and send him round with them," was his answer. So that, as I say, it is for things that you cannot carry round in a handbag that I think an exhibition is chiefly useful.

6949. So far as individual business is concerned, a State by participating officially in international exhibtions may give one man the kind of advertisement which is useful to him, whereas his neighbour in a different branch of business can get no advantage from it at all, or very little?—That is so.

6950. The textile trade is one of the biggest in the country, is it not?—Yes. I have my doubts as to the benefit to the textiles.

6951. Speaking from the point of view of the engineer, who has a heavy article to show which requires an ocular advertisement rather than a printed one on paper——?—That is so——

6952. You think an exhibition is a very good thing?—Yes.

6953. How often do you think engineers as a whole would be prepared to support international exhibitions? At what intervals would they be ready to go?—I should think not less than five years.

6954. Would you put it as often as five years?—I am doubtful.

6955. Perhaps ten?—Yes.

6956. Because the cost is very heavy, and therefore to recoup themselves they require to spread it over a period of years?—Yes.

6957. I think you told the Chairman that you would not consider it right that the individual exhibitor at an exhibition should receive any direct subsidy, but that he ought to pay his own expenses?—I think so. I think that a man ought to feel the responsibility of working on his own, and standing on his own feet, but should have all possible general assistance at, say, bare cost price.

6958. That is, the assistance of the State should take the form of the most efficient organisation that can be provided?—Yes.

6959. And should not go any further?—Unless it were this: Supposing a man had assistance from the Commission, for which they would require to send him in a bill for the labour and such like, they might say, "Now, if you will have your stand ready on the opening day, you shall have a discount of 10 per cent. on that."

6960. Do you think that exhibitors generally, so far as your experience goes, would take the same view—I mean, that there is no general feeling among would-be exhibitors that the Government ought to pay their expenses for them?—I have never heard that; but if I may supplement what I said just now, there is this general feeling: "We are not expected to be ready by the opening, and nobody will be ready by the opening; if you only get your stuff inside, that will do."

6961. There is a certain lack of briskness about the organisation?—Yes.

6962. You have heard complaints perhaps from exhibitors who have been to recent foreign exhibitions. Take Paris or St. Louis; have you heard any complaints from them as to the inadequacy of the Government organisation?—No, I have not.

6963. Have you been led to suppose that it might be better?—There is always a certain amount of grumbling, but there is no particular point that comes to my mind at the moment.

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6964. But you think that there is room for improvement, and that it might be more efficient; is that your impression?—I have heard grumbling as to the British Commission not doing enough.

6965. I am talking of the British Commission?—The extracts that I have sent you show you that.

6966. And so far the British Commission might be much more effectively organised?—Yes. I thought at first you were referring to foreign Governments.

6967. (*Chairman.*) For the Liège Exhibition, to which, I think, your extracts refer, there was not a Royal Commission; that was organised by the London Chamber of Commerce?—I could not make that out. In one place I saw it mentioned that £100,000 was being spent upon it.

6968. Upon the exhibition at Liège?—Yes. Both the "Westminster Gazette" and the "Coal and Iron Trade Journal" referred to £100,000 being spent on it; and I marked that with a query.

6969. (*Sir Isidore Spielmann.*) On the British section?—Yes.

6970. (*Mr. Harris.*) Are you sure that it is Liège—Yes.

6971. (*Mr. Malcolm Ramsay.*) The British Government did not participate at all at Liège, and I think no Government grant was made?—That is what I thought was a mistake, and so I marked it with a query.

6972. (*Chairman.*) If it is only Liège that your criticisms refer to, then they do not relate to a British Royal Commission. You are not referring to one of the Paris exhibitions, are you?—No, to the Liège Exhibition.

6973. (*Mr. Malcolm Ramsay.*) Have you heard any complaints about the British Commission either at Paris in 1900 or at St. Louis in 1904?—As far as I can remember the remarks about Paris, they were complimentary.

6974. Now turning to the committee which should manage the British section, would you be in favour of giving that body very strong powers of selection—that is to say, ought they not to have power to reject any exhibit which is not first class?—Yes.

6975. Would manufacturers as a whole be prepared to submit their goods for selection? Would they be jealous of each other on that account?—How could you very well do that? Supposing there was a competitor of mine on the Commission, and my goods were thrown out. This competitor might be quite innocent of it, but I should have my own thoughts about it perhaps. I do not know as long as a man is prepared to pay for space whether you can refuse him.

6976. But after all the space is limited in an exhibition?—Yes, it is.

6977. If the exhibition is a large international one, would you not agree that the exhibit should be truly representative of the best we can produce?—Yes.

6978. And that the exhibit must not only be an advertisement for the individual, but also a collective display for the nation?—Yes.

6979. Consequently the Commission ought to select from the various exhibits which are offered to them only those which are typical and of the highest class?—I never heard that suggested before, but I think it would certainly tend to securing greater credit for British productions.

6980. We have been told by various witnesses that the display of Great Britain at Paris and other international exhibitions has never been really representative, or as effective as those of foreign nations; and therefore I was asking whether it might not be a good thing for this Committee to be rather an independent body with certain judicial powers, as it were, so as to ensure that the collection shall be representative and of the best class: would you agree with that?—Now I grasp your idea I should, certainly.

6981. Otherwise it seems to me you lower the standard so much; if anybody who offers is allowed to exhibit, subject to the space available, it must tend to lower the quality, must it not?—Yes. The effect would be the same as if a fellow gets plucked at an examination; if he is of the right kind, he will try harder the next time and come out top. So a firm who are refused, if they are of the right sort, will try harder and produce something better the next time.

6982. Do you not think that exhibitions may be profitable and advantageous for firms who are growing and have a name to make, and for people who have a novelty to show; and that the firm with an established reputation may not think it so necessary to use that particular form of advertisement?—I do not think so. Competition is so very keen nowadays that no firm can rest on its oars, as it did in a bygone generation, and say "Now I have made my position, and I can go on steadily for the rest of my days." In the case of some of the firms we represent, for whom we have had a good connection, we find it just as necessary to fight hard for them to maintain their trade, because their very success makes them a mark for envious firms to try and get a share of it. So that while the man with a novelty and the man with a business to make has a great deal to gain, the man who has a business to hold has also something to gain.

6983. And a great deal to lose?—Yes.

6984. (*Sir Isidore Spielmann.*) I understand that the Liège Exhibition was the only foreign exhibition at which you have exhibited?—That is so in regard to the machines we are selling.

6985. But you have visited many others?—Yes.

6986. Can you tell us at which of those exhibitions you consider the British section has made the best show in your line of business?—From what I have heard ——

6987. No, from those you have seen ——?—Next to Paris I think Glasgow.

6988. What was the British machinery section like at Liège; was it good?—No, there were only about seven firms there.

6989. Important ones?—Green's, Simpson's, Armstrong's, and I forget the other four.

6990. You exhibited in that section, did you?—Yes, but not in our own name. The machines were exhibited there which we are selling in this country.

6991. Were any awards given to your firm?—No, not at Liège.

6992. Could you tell us, whose names do these machines you sell bear—yours or the manufacturers'?—Green's Economiser of course is sold as Green's Economiser. Some of the machine tools sometimes go out as Richards' tools and our name-plate would be screwed on alongside of Richards'.

6993. As agents, I suppose?—Yes. Then some of the smaller machines are sold absolutely in our name.

6994. And you do not exhibit as agents for those firms?—No; we take a general stand.

6995. Do you put your own name up at all?—At Liège Exhibition we did not, but at London here last year we did, and at Newcastle we did—everything on the stand was in our name.

6996. I think I understood you to say that the firms in your line of business do regard exhibiting at international exhibitions favourably?—If they do not come too frequently.

6997. Taking all the exhibitions that you have seen, which country has organised its exhibits the best in your line of business?—I was not at Düsseldorf, but I do know that a great number of our engineering people were very much impressed with the Düsseldorf Exhibition. I forget how many years ago that is, but I know that at the time our folks up North seemed to be talking about it.

6998. In the machinery section, which country do you consider we would do well to follow?—I do not thing we ought to follow; I think we ought to try to originate.

6999. You stated that our organisation and our installation are not very successful?—Yes.

7000. And that other countries do better?—Yes.

7001. Which would you point to as serving as a model? Take the Paris Exhibition; which machinery section there do you consider was the best arranged and equipped?—I hardly know how to answer that, because the general arrangement of the section from a sightseer's point of view might be excellent, but the details might be in default.

7002. No one country appealed to you exceptionally?—I would say no one.

7003. (*Chairman.*) Do you do mostly a home trade—that is, is the home trade the most important part of your business?—Until two years ago, yes; but in these

last two years we have exported more. Now the two are about equal, I think.

7004. In what you export is the colonial trade as important as the foreign?—Yes, leaving out Japan. I may say that we have very heavy exports to Japan, but taking those out, the Colonial trade is more important than our foreign trade.

7005. The exhibition last year that you referred to was the Electrical Exhibition at Olympia, I suppose?—That is so.

7006. I suppose the number of these special exhibitions render it less necessary that you should have large international exhibitions so often?—Yes, that is so.

7007. I suppose you would always show at local or British exhibitions in your particular line?—No, not always. We are not coming up to Olympia in September, for instance.

7008. What exhibition is that?—It is a repetition of the Engineering Exhibition.

7009. And you are not showing there this year?—No, we are not. We think it is too soon on the heels of the other one.

7010. That would be an interval of less than two years?—Yes.

7011. And that would be too soon even for a special exhibition in this country?—I think so.

7012. (*Mr. Malcolm Ramsay.*) Do you happen to know whether the engineers of your acquaintance make a point of visiting foreign exhibitions?—They go very readily if they can have company. The Institution of Mechanical Engineers went to Liège, and they go to Aberdeen this year. Then the Naval Architects and so on visit these places. If they can have company a whole lot of them go.

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7013. They do not think these exhibitions would be likely to be good enough for them to go over alone?—It is not that; it is for the sake of the company. Then business men find it very difficult to get away for a holiday, and if you can combine a holiday with a little bit of business inspection, if not actual transaction of business, the conscience feels a little bit easier about it.

7014. I suppose they may at a foreign exhibition learn a good deal?—Yes.

7015. They may get a good many hints that are useful; perhaps they may see a new machine?—There is that about it; and there is also this you see —— Supposing the Mechanical Engineers are going to Aberdeen and I go with them, I will meet customers from all over the country, and apart from the exhibition the meeting with kindred spirits is an incitement. That is one of the things that I think the Commission ought to encourage.

7016. Does that consideration apply equally to a foreign exhibition, say one at Paris or Brussels?—Yes.

7017. (*Mr. Harris.*) You mentioned to the Chairman just now that you had had a great accession of business with Japan lately?—Yes.

7018. Can you tell us how your Japanese customers came to you?—Yes. Armstrongs at Newcastle had so much business for the Japanese that the Japanese inspectors—some of whom are now right on the Emperor's personal staff by the way—were located at Newcastle, and for a time their head office was at Newcastle. So we were in close contact with these men, and in that way we got business. Now they have removed their head office back to London. Of course, we have also resident agents in Japan.

Mr. James Gray Mathieson, called and examined.

7019. (*Chairman.*) You are a director of the firm of Messrs. Clarke, Nickolls and Coombs, Ltd., I understand?—That is right.

7020. Where are your works?—At Hackney Wick.

7021. You have been in business for some time, I think?—The firm has been in business for about 35 years.

7022. Has your firm exhibited at the great international exhibitions abroad?—No. We certainly have not exhibited at all at such exhibitions since 1883.

7023. That was an exhibition at Amsterdam, was it not?—Yes.

7024. Then you exhibited confectionery, I suppose?—Yes.

7025. Have you had any increase of business in foreign countries which you could attribute to showing at exhibitions?—No, we cannot directly say that we have.

7026. On the other hand, you have not had any great disadvantage from exhibiting, have you?—No, I cannot say so.

7027. I understand you do not attach any great value to the awards which you got at Amsterdam?—No. We used to make use of them at that time—we used to make a feature of it; but it is very ancient history now, and we do not attribute any further importance to it.

7028. Before Amsterdam did you not exhibit in Paris in 1878?—No. We were at an exhibition in 1877 somewhere in South Africa, I think; but that is getting a little before my time really; it is so far back.

7029. You have been to some exhibitions, I suppose, since?—We have been to exhibitions in this country, but not abroad.

7030. Therefore it is no use asking you whether you have been induced to buy machinery or other things from seeing goods at the big international exhibitions?—No. When there has been an exhibition in this country we have taken care to go and see what there is in the way of foreign exhibits and machinery, or anything of that kind.

7031. Is there not one at the Agricultural Hall generally?—There is a Confectioners' Exhibition there every year.

7032. Do you exhibit there?—We showed in the first few years, but latterly—I do not know for how many years; for five or six years, at any rate—we have given it up. We have found that it was rather a tax on our staff, and really we find our customers are best managed by the travellers who are in the habit of calling on them. Exhibiting took a large number of our men off the ground, and we gave it up for that reason.

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7033. Is the way you sell your goods, or bring them to the notice of new buyers, by travellers?—Yes, we trust almost entirely to travellers.

7034. Have you travellers abroad as well as in London?—The continental business is done by our continental agent.

7035. Where does he live?—His headquarters are in London, but one or other of his people is nearly always travelling abroad in the countries on the Continent in which business is likely to result. That practically means Holland and Belgium in our case. He occasionally does a little in Constantinople, Egypt, Denmark, Norway and Sweden, but it is mainly in Holland and Belgium that we do trade abroad.

7036. In Turkey and the East there is a tremendous consumption of sweetmeats, is there not?—But it is rather a low class.

7037. Too low a class for your manufacture?—It is rather below our usual class of goods. There is a great trade, I know.

7038. It is almost a food, is it not?—I suppose confectionery is; at any rate, sugar is food. But that business, the Mediterranean trade, is altogether very much cut, and we do not cultivate it.

7039. And you have never tried to cultivate it?—No.

7040. Then I come to your reasons for refraining from exhibiting. In your heads of evidence you speak of the high tariffs as one of the great reasons?—Yes. We are practically shut out of all European countries but Holland and Belgium.

7041. Do you not manufacture a different class of goods, specialities that are not made in those countries that have the high tariffs?—To some extent; but in those high tariff countries sugar is dear, and the tendency there is for the confectionery to be dear also,

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and the trade to be done by high-class firms catering only for the rich. The English confectionery trade, so far as we do it, is like a good middle sort of trade; our particular branch is the better middling class of goods. There is, of course, a large amount of common English confectionery which my particular firm does not touch; the bulk of the trade that is done by us is the sort of better middling, though we also cultivate a high-class trade.

7042. Does not your trade go down as low as farthings and halfpence—that is, selling by farthing packets in cheap neighbourhoods?—We do a little in that way, but not very much.

7043. Not much?—We do not cultivate it so much.

7044. The bulk of your trade is rather betwixt and between—the middle-class?—Yes, that is right.

7045. Where the sugar duties are high, of course the corresponding duties are even higher?—Yes, the duties are generally double the sugar duty, at least.

7046. Are they at least as much as that?—Yes. In some cases they are not, but in most cases; and as a rule, the more backward the country the more they put on confectionery—I do not know why.

7047. Then their consumption of sugar, and, consequently, the sugar trade, is not anything like so much as it is in this country?—No.

7048. I suppose that even in your time the consumption here has increased very much?—Yes.

7049. A large proportion of your trade is home trade, is it not?—Yes.

7050. About three-fourths, at least?—Fully that.

7051. You do not see any possibility of getting a large trade with foreign countries, do you?—Not with the tariffs as they are at present.

7052. What about the Colonies? Did you exhibit at the New Zealand Exhibition last year?—No. We do a trade, of course, with the Colonies.

7053. There is a considerable trade in sugar and sugar products, is there not, done with the Colonies?—Yes. But then our Colonies are so very peculiar in their ways. They have tariffs, too; they are not as great, but we never know exactly what they are going to be up to in the way of all sorts of impediments to trade. We have had trouble with catalogues, for example.

7054. When sending catalogues?—Yes, and just now there is another thing cropping up in one of the Australian Colonies—I forget which it is. They want the ingredients of certain things of ours to be specified, for example. We do not care to do that on all occasions.

7055. Is that not so at the Cape?—I do not know that we have had any trouble with the Cape.

7056. You think it is one of the Australian Colonies?—Yes, it is one of the Australian Colonies; I think it is Western Australia. I suppose it will apply to the whole of the Commonwealth now.

7057. Surely the Commonwealth tariff is for the whole of Australia, is it not?—Yes. I was thinking of a particular order for one of the Australian Colonies, I forget which. But it would come under the Commonwealth tariff. It was in Queensland that the case arose, but as the question has not been raised with other shipments of the same article to other parts of the Commonwealth, there may be merely some excess of zeal on the part of the local official in the case.

7058. Do you do a large trade with Australia and New Zealand?—We consider it a big trade.

7059. But for doing that trade you send travellers, I suppose, and you do not use exhibitions?—That is so. We have an agent permanently there, and we send a traveller occasionally, who goes round with our newest samples. Our agent has his traveller—he travels for various firms in other lines of business as well, and he is always going round; and every now and then we send our traveller out, who accompanies him on his round and shows the latest things.

7060. Do you have new compositions pretty often?—Novelties?

7061. Yes, novelties in confectionery?—Yes.

7062. Are you always inventing?—Yes.

7063. Chiefly something to look attractive?—Well, you must modify things in some way. I suppose these goods are bought by the appearance mainly.

7064. Do you exhibit them at the Confectionery Exhibition here?—No; we have given that up now for some years. Of late years we have been trying to make a sort of special show of our own. When our customers come up at the time the show is on in London, we try to get them down to our own showroom and let them see the things there. That is more convenient for us.

7065. You are referring to the wholesale buyers, are you not?—Yes.

7066. I suppose that on the whole you have had very little to do with exhibitions?—That is so.

7067. Are you in favour of this country being represented?—As far as our trade is concerned, I do not think it is any good.

7068. You do not think it is any use?—No. Of course, I can only speak for our own particular trade.

7069. Your travellers can carry about your samples, and make them known in any country where there is a chance of establishing trade?—Yes. We reckon that when the traveller goes round he will get the order before any of our opponents see the goods. Our opponents will only see them after we have sold them and they have got into trade. But if we show them at an exhibition, one's opponents see them just as soon as the possible buyers do.

7070. But I suppose more of your possible customers would see them at an exhibition?—I think the travellers as a rule get to know where to find the customers.

7071. Do you think they know all the wholesale people who will be their customers?—Yes; they soon find them out if they are smart.

7072. Then I take it you have not considered whether there are any means of improving our organisation for the management of exhibitions?—No. You see we have no modern experience at all, because we have not exhibited since 1883.

7073. (*Sir Isidore Spielmann.*) Will you tell us, please, what is exactly the nature of your exhibits when you do participate in exhibitions?—At the Agricultural Hall we used to show pretty nearly everything that we make—that is, the general line of confectionery, jams, candied peel, and also Christmas crackers—that sort of thing.

7074. Do you make sweetmeats?—Yes, sugar confectionery.

7075. Chocolates and things of that sort?—That is right.

7076. When you say that exhibiting your goods will simply be to show them to your competitors, do you refer to the competition in foreign countries?—I mean particularly in tariff countries. I suppose the average tariff over the Continent of Europe would be about 100 per cent. *ad valorem*, and so, of course, it is impossible for us to compete if there is anybody in the country who can make the goods.

7077. Have we not also a great deal to learn from the foreigners; in fact, have we not more to learn from the foreigners in the way of confectionery than we can teach them?—I should not like to say that.

7078. Has not France and has not Austria a greater reputation than we have in the way of confectionery?—They have in this country; but if you go to Holland, I think you will find we have as good a reputation there as anybody.

7079. In competition with their goods at exhibitions, do you think we are likely to come out best?—Do you mean if we were showing alongside a French or a German firm?

7080. Apart from jams—where I suppose we take the first place——?—Yes.

7081. Are not foreign countries ahead of us in other confectionery?—It depends altogether on the class of goods. If you take a particular firm's goods there are, I have no doubt, plenty of firms in France and in Germany whose average would be above ours, because we cater for a different class of trade; but if you take two things which are strictly comparable, I have no doubt we could produce as good an article.

7082. In these foreign exhibitions, do you find that English manufacturers hold aloof because they are a little afraid of competing with the foreigner?—No, it is not for that reason; it is because the duty that would be put on is prohibitive. Where the foreigner

can produce for 2s. more, the tariff is very likely 20s. to 40s. or 50s.

7083. Then the fear of competition has not in any way weighed with you in refusing to take part in international exhibitions since 1883? It has been only the matter of the duty, and not because you think you would compare unfavourably?—That is so. It is the matter of the duty. We could not send the stuff in, because the people would not pay the price that would be necessary.

7084. Do you not think that to show confectionery in process of manufacture would be an attractive exhibit in an exhibition?—Yes.

7085. Have you ever done that?—We have not done it abroad, but I have known it to be done. It would be attractive no doubt, but whether it would be effective in inducing business abroad, I do not know. We have repeatedly shown confectionery manufacture in this country.

7086. There is no duty in Holland and Belgium, I think you say?—There is very little.

7087. Have you ever participated in an exhibition in either of those countries?—Not since 1883.

7088. But they have had several—Belgium has had many, and you did not exhibit in Brussels in 1897, did you?—No. For one thing, they are comparatively small countries; and then to do the thing properly we think the expense would be out of proportion in those countries to the results that would be likely to accrue.

7089. So you really have many reasons for not exhibiting at international exhibitions?—Yes.

7090. There is to be one in London next year, the Franco-British Exhibition?—Yes, I know.

7091. Where there will certainly be no duty on your goods; will you participate there?—The question is about international exhibitions abroad, is it not? The thing is rather different in this country. I do not know quite; we have come to no decision, at any rate yet, about the Franco-British Exhibition here. It is possible we may exhibit. But I cannot say I have very much faith in it myself.

7092. You have no faith in exhibitions at all, do you mean?—Very little. I believe much more in commercial travelling, and in getting travellers to take the samples round.

7093. (*Mr. Malcolm Ramsay.*) Do you think that most of the manufacturers in the same line of business as yourself would agree with your view of the value of international exhibitions?—Abroad? Yes, I think most of them would.

7094. Were you invited to go to Paris in 1900?—I expect so; we had the opportunity, I daresay.

7095. You do not know whether your firm thought specially about it at all?—It is rather before my time, but I have no doubt they came to the conclusion that it was not worth going to at that time.

7096. Have you yourself visited foreign exhibitions at all?—No, not abroad.

7097. You have not been there to see what other countries were producing?—No.

7098. Or the stuff that might possibly come into England to compete with your goods?—No; but one of our people was at the last St. Louis Exhibition.

7099. (*Sir Isidore Spielmann.*) What was that for? Was it with Bakers?—No. One of our representatives who happened to be in America at that time—he was going to Canada—went to see the exhibition. Bakers exhibited their machines, and we had the offer to make sweets by their machines there; indeed they wanted us to go.

7100. (*Mr. Malcolm Ramsay.*) I daresay you are aware that the British Government have spent considerable sums of money on taking part in international exhibitions?—Yes.

7101. Would you say that so far as your business is concerned, this money has been of no use at all?—I think that is so.

7102. (*Mr. Harris.*) So that, in fact, the upshot of your evidence is that, from a trade point of view, so far as you are concerned, exhibitions are really no use at all?—That is so in countries where there is tariff on our goods. I daresay if a big country like the United States were to take the tariff off, they would be useful.

7103. Was the tariff the reason why you declined to go and manufacture confectionery for Baker and Co.?—Yes.

7104. (*Mr. Algernon Law.*) You yourself have not visited international exhibitions abroad, I think I understood you to say?—That is so.

7105. So you yourself have no experience of them?—I have no personal experience.

7106. Does the tariff affect goods which are not produced in a foreign country? Jams, like those we produce in England, and marmalade, are not produced in the same way in foreign countries, are they?—They are produced in foreign countries to some extent, and could be produced to any extent. Jam is a thing that we have tried frequently in foreign countries; our agents have tried to get them on to it, but it does not seem to catch on, except to a very limited extent.

7107. Are you aware that in the case of tea, which is not drunk in many foreign countries, and which was not much drunk in the United States, the result of having a stall and selling tea at the exhibition at Chicago was that there was a great demand for it?—That might be so.

7108. Do you not think that if you had a stall at an exhibition producing all your confectioneries you might create and cultivate a taste for those things which you produce which are not produced in foreign countries?—There are very few things that we produce which could not be produced in foreign countries. Jam can be produced in foreign countries, and if the demand got up to any great extent, it would certainly be produced there. It is a thing which they could produce very much cheaper than we could send it, because for one thing packages bear a very great proportion to the cost.

7109. Is not sugar more expensive abroad than it is at home—or was in the past, at any rate?—Yes, and that, of course, checked consumption.

7110. Is it not of assistance to an export trade if your raw material is much cheaper than the raw material in the foreign country?—Yes, that is no doubt the case if the raw material is cheaper; but then the difference between the tariff on sugar and the tariff on jam, for example, is great too, you see.

7111. If there was no jam in the country to protect, and you cultivated a taste for it, would not the people pay the money for that jam, if they wanted jam and they could not get it otherwise?—We would have all the expense of making up a trade for a new thing which is not known, and then when we had established a trade, my feeling is that somebody would start making it in the country. We have had repeated offers made to us to start a factory in Germany, for example; and that is what we would rather do.

7112. Does that not apply to beer, ales and articles of that sort? Bass's ale competes in other countries, though beer is made in the other countries?—I am a teetotaller, and I do not know much about that sort of thing; but I should say that Bass's ales is a totally different thing and a specialty of their own which nobody else could produce.

7113. At any rate, you yourself have had no experience of exhibitions, nor of what an exhibition can do for your trade?—No; it is more a matter of opinion probably than of experience.

7114. It is a matter rather of conjecture than of experience?—Yes; it is, of course, conjecture, but founded on what we think is a pretty sound basis.

7115. You say in your Heads of Evidence, with regard to the Sugar Convention, "absolutely no attention was given on this side to consumers' interests." Is the case of sugar and confectionery quite the same? Have you foreign confectionery sold in this country competing with yours?—We do have that.

7116. At a lower cost of production, owing to any bounty on confectionery *quâ* confectionery?—No. What I referred to there was that I suppose in nearly all foreign countries they used to raise a considerable excise on sugar, and, as a result of that, the sugar consumption was low, and they seem to have thought it was proper therefore to give all the users of sugar in the country as great advantages as possible, so they made all their duties on confectionery, etc., absolutely prohibitive. Now, although owing to the Convention they have been able to reduce their excise on sugar,

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they have frequently left the proportion of the relative protection on sugar goods as great as it was before, although there is absolutely no reason for it. I think that at the time of the Convention, if our people had been properly awake, they might have got that reduced; in fact, I know it was stated in the House of Commons at the time by Mr. Bonar Law that the duty on sugar products would be reduced to a protection of about half-a-crown, I think it was, which was allowed under the Convention. As a matter of fact, they have not been touched in some cases.

7117. But you have not been able to find a case in which the high duty on confectionery worked so as to produce a bounty on the export of confectionery from the foreign country to this country?—No; there was no question of bounties on confectionery.

7118. The object of the Convention was to get rid of bounties, was it not?—That was so.

7119. And there was no bounty on foreign confectionery?—As a matter of fact, it had no practical effect that way, but it might have had such an effect.

7120. So that the case of sugar, and the case of confectionery are rather different; in the one case, there was a bounty on sugar coming into this country, but in the other case, after the Convention, there was no bounty on confectionery coming into this country?—No; and that is not my point in what I say in my Heads of Evidence.

7121. Still, the two cases are not quite the same; and I only wanted to bring that out. Would you in no case be induced to exhibit your confectionery in a foreign country in order to provide a thorough representation of all the British industries?—One could only do it on what one might call patriotic grounds, I suppose.

7122. I suppose it is not a very expensive operation to send an exhibit of confectionery abroad, is it?—The greater expense would be in keeping a man or somebody to look after it. You must send somebody who is well acquainted with the language for one thing, and with the business arrangements and so on.

7123. Your goods would not want any explanation, I take it, so that a man who was looking after other things could attend to yours as well?—They need a great deal of explanation, because the number of different lines that we produce is enormous—we have a tremendous range.

7124. So it would entail a certain amount of expense in that direction?—Yes.

7125. (*Mr. Wilson Fox.*) Assuming that you were induced on patriotic grounds to join in a British exhibit of confectionery in order that Great Britain should be represented in that line, you would insist, I suppose, on having your name on your own exhibit?—That is rather a hypothetical question.

7126. Would you object to sending a collection of confectionery anonymously as part of a British exhibit in Paris?—I think we should, because we would get absolutely nothing for it, would we?

7127. Exactly. Anyhow, your desire would be to have your name identified with your portion of it?—Yes, I think so.

7128. Is there much competition between you manufacturers? Have you got many competitors in your own particular line in this country?—Yes.

7129. Would that fact operate against your desire to join in any collective exhibit with your competitors? Would you rather send an exhibit of your own singly, and in your own name, and show in a stand of your own; or would you have no objection to sending with your competitors an exhibit to make up a collective exhibit of the whole trade? What is your feeling about that?—Personally, I do not think I would have much objection. In that case, of course, the thing would be really anonymous.

7130. No, each person's name would be over his own exhibit; but it would be a collective British exhibit properly arranged, and arranged on a system. To put it plainly, would the fact of your trade rival showing under the same roof and in the same group prevent your desiring to join in such an exhibit as that? Would you be afraid of the rivalry?—It wants some consideration. I do not think so, speaking off-hand; but I do not think such a thing is practicable.

7131. Why not?—You see there is such an immense number of different things, and each manufacturer tries to be a little different from the other man. The way, and the only way, that we can succeed in ousting the other man is to show some advantage over his goods, and we do it really by continual alteration in the style of the packages, and so on.

7132. One advantage of the collective exhibit would be to show the variety of things Great Britain could produce?—Yes.

7133. Notwithstanding that you would have that advantage in a collective exhibit, you would not be in favour of a collective exhibit, I think?—I do not think it would be any good to us.

7134. I rather want to get from you whether if you did show at Paris, say, you would prefer to show by yourself in your own glass cases and apart from everybody else?—Yes, we should decidedly. If the exhibition was undertaken for commercial reasons we should undoubtedly prefer a separate show of our own.

7135. You would not prefer to show in a collective exhibit?—We would prefer to show by ourselves, decidedly.

7136. Do you know whether foreigners show confectionery at international exhibitions?—Take Paris, again, for instance. Do you find that German manufacturers of confectionery or American manufacturers of confectionery show in Paris?—I do not know enough about it to say. I should think comparatively few would show, but there might be a few.

7137. But you do not know?—No, I do not; and I have no experience of it at all.

7138. According to the theory you have advanced, it seems to me there are likely to be no confectionery exhibits in any foreign country if tariffs stop everybody coming; I want to get at that. Does anyone show confectionery in a Paris international exhibition except the French, on account of the tariff there?—That I cannot say. There may be some special things that others may show.

7139. You see it is rather an important point for us to arrive at. If British confectioners do not show in foreign European countries on account of the tariff, how far are other foreigners stopped from showing?—Every now and then, of course, there does arise a case in which we can compete, but it is not often. There is one particular article which we make which we could send to France, and I suppose such cases arise from time to time. It is just possible that some manufacturers may have such cases. As far as the general line of British confectionery, at any rate, is concerned, I do not think we can hope to do any good. There may be specialties, but if we had a speciality of this kind which we could send to a high tariff country we should prefer to sell the secret for a royalty and so avoid the tariff.

7140. You do not know, as a matter of fact, whether there are good confectionery exhibits from the international point of view at international exhibitions?—No. I have never been to them, and so I cannot say.

7141. Therefore you do not know really whether it is worth your while sending to these exhibitions or not?—I have come to the conclusion that it is not.

7142. I know, but that is from another point of view—that is from the business point of view. If the confectionery exhibit at a foreign exhibition was a very bad one, and is not likely to be drawn attention to, it is hardly worth while your sending, is it?—I do not quite understand your point.

7143. Supposing the confectionery exhibit at a foreign exhibition is a very poor affair, and is likely to be put away in a hole-and-corner, and is known to be thought very little of, it is hardly worth while your showing?—No, not in that case.

7144. Your chief trade is in this country, is it?—Yes.

7145. Still even in this country where you have got your trade you would not look upon an exhibition as the best form of advertising your goods, would you?—No.

7146. Or as anything like a good form?—No, we are not enamoured of exhibiting anywhere, but at the same time we do show in this country from time to time. We have to consider all the circumstances of the case.

7147. Is that because your class of goods is one which would be looked at by wholesale buyers, and not very much by the general public?—I do not know that. We have an immense number of customers, and we go

to some extent direct to the retailers. The trade is not done by a small number of people at all.

7148. I should have thought that the people who would have seen your goods, and done business with you afterwards on account of having seen them, would be wholesale buyers?—No. Practically I do not suppose there is a wholesale buyer of importance in the country that we do not call upon regularly.

7149. Is it your view that anybody belonging to the general public who goes to an exhibition would be likely to send an order for your goods if they saw them?—You see we do not do business with individual members of the general public; we would not do direct business with them.

7150. Who would buy your goods on account of having seen them, say at the Franco-British Exhibition?—There are both wholesalers and what we call retailers—that is, shopkeepers—and we would appeal to both. We have separate travellers for our wholesalers and our retailers. One of the difficulties of the exhibition business is that you have got to find out what sort of fish you have hooked, and you have got to have the right man there to deal with him. That means that you have got to keep such a large staff there.

7151. Then it is not a trade which would attract orders from consumers afterwards like, say, the jewellery trade?—No.

7152. Or the furniture trade?—No. We would not deal direct with them; it would upset our other buyers.

7153. You do not know anything about awards, because you have never gone in for them?—The last award we had at an international exhibition abroad was the award we got at the Amsterdam Exhibition.

7154. And that is a little bit out of date?—Yes.

7155. You have got your own views as to the best method of advertising your business, and exhibitions is not one of those methods?—That is so.

7156. (*Mr. Algernon Law.*) You say that you will not exhibit in a country where there is a high tariff wall. Have you considered whether you might not obtain custom from some other country by visitors from that country going to this exhibition in the country where there is a high tariff wall? We have had it in evidence that people have sent exhibits to Chicago and St. Louis which have resulted in great business being done in Canada, for instance. But you have not considered that aspect of an international exhibition, have you?—No.

7157. You might have got from exhibiting at Paris, for instance, business in Brussels, for no doubt a good many Belgian people visited the Paris exhibition?—Of course there would be that possibility. I do not know that we have really considered that point at all, and I hardly think that the amount would be likely to be great in our case.

7158. (*Chairman.*) You think that the demand would not come from the people for any new goods that you have been making, but that it would come from the wholesale buyers? If you can persuade the wholesale people that something new that you have got will go off they will buy it, I suppose, and then the retailers will have to stock it?—I suppose that is how it works. We persuade our wholesalers, and they persuade the retailers.

7159. You do not go in for the democratic point of view that by showing at an exhibition at Earl's Court or elsewhere, people get a taste for a new sweetmeat and demand it, and will not be happy until they get it from the shopkeepers?—No, we do not; but, of course, that is a point.

7160. You agree more with the aristocratic theory, that it should come from above, and that people should be told what they ought to like?—I do not know. We have such a tremendous number of articles, and the business in each one is, after all, so small. If we had a few lines only there might be something in that idea of getting the public to ask for them; but we have never tried to boom a particular article in that way. We could perhaps, by lavishly advertising it, get people on to it; but that has not been our attitude at all.

7161. (*Mr. Malcolm Ramsay.*) I suppose you make many kinds of experimental confectionery, and you develop that one which takes the public fancy most?—That is so. I suppose out of every 20 new lines we would be satisfied if one wins.

7162. You are putting down ground bait?—Yes. We are continually bringing out new things, and it is only a proportion of them that go off.

7163. (*Sir Isidore Spielmann.*) I find that at the last great exhibition, the St. Louis Exhibition, one of the best and most important exhibits in the British section was in your line—that of Messrs. Baker and Sons?—Bakers are machinists, they are not confectioners.

7164. They showed machinery in motion making all kinds of confectionery; I will not specify what they were—they are all in the catalogue here, and they include ice creamery, chocolates, and other things. It seems that all that was sold during the progress of the exhibition, and the public went in very large numbers to buy it. Baker and Sons obtained a *grand prix* for their exhibit, which they advertise very largely, I believe?—Yes, that is so.

7165. That being so, would a similar exhibit on your part not be an advantage to your firm?—Their position is absolutely different to ours. They sold their machines, and I am told they did very well over it; but that would not be an advantage to us. I knew all about this thing beforehand. Bakers were very anxious for us to go and make the sweets for them, but we would be simply pulling the chestnuts out for Bakers. You would really need to go and find out the result to the man who made the sweets for Bakers, and learn whether he got any advantage and whether he sold anything. I do not remember altogether, but I am inclined to think that Bakers could not persuade any English firm to do it for them, and they had actually to get a foreman in America to make the stuff. Of course they could sell it there all right, because they bought the sugar in the country, and they would be exactly in the same position as an American manufacturer. The stuff that was made on the spot was not like imported stuff on which they had to pay duty. It was a totally different thing.

7166. Would you say that taking a high award at an exhibition would be of no particular advantage to you?—I do not know that it would be in this country. Of course there is a certain amount of prestige attaching to these things; but, after all, when you have got this award you have got to advertise it, and to send your man round to tell the buyers that you have got it.

7167. Would that not influence business?—It might, but I do not think it would influence it much. I think they usually form their own conclusion from the samples that they see.

7168. (*Mr. Wilson Fox.*) When firms reach a certain reputation it is not so necessary for them to exhibit, is it?—No. We showed when we were younger than we are now, I suppose.

TWENTY-THIRD DAY.

Thursday, 13th June 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Mr. Ivan Levinstein, called and examined.

Mr. I. Levinstein.
13 June 1907.

7169. (*Chairman.*) You are the managing director of the firm of Messrs. Levinstein, Ltd., manufacturers of aniline dyes and chemicals?—Yes.

7170. And also you represent the Manchester Chamber of Commerce here to-day?—I do.

7171. Shall we take first your evidence on behalf of the Manchester Chamber and then your evidence on behalf of your own firm, or have you not separated the two?—I have not done so. As a matter of fact, when the question came before the Chamber, I expressed my views and other people expressed their views, and it was found that the Chamber supports me entirely in my views; so that my evidence in both capacities is really the same.

7172. Then that will not make any difficulty here; but on another Commission we have had difficulty, because witnesses coming from a Chamber of Commerce have said that they do not agree with all that their Chamber puts forward?—In the Manchester Chamber, there is no doubt about it, we agree amongst ourselves absolutely.

7173. You have had a good deal of experience in connection with exhibitions, have you not?—I have had some experience.

7174. I see that you exhibited at Berlin in 1877; at Paris in 1878; at London in 1885; at Liverpool in 1886; at Manchester in 1887; and at St. Louis in 1904?—Yes.

7175. But you did not exhibit at Paris in 1900?—No; we did not exhibit at Paris in 1900; there was not sufficient inducement for us to exhibit there.

7176. The articles that you have exhibited have been coal tar dyes, I think?—Yes; coal tar dyes and their intermediate products. By their intermediate products, I mean such products as are used in the manufacture of coal tar dyes.

7177. I understand that you have not found any direct benefit from exhibiting?—No, we have not. We have our own establishment in America, and we have our own establishment in Italy; and having travellers going round in those countries, it is of very little advantage to us to exhibit there. There is another special feature in our case, and that is that you cannot judge of the quality of aniline dyes by their appearance. They are sold in powders, and nobody can tell whether the powder is a good powder or a bad powder, or whether it is novel or not novel. An aniline dye is not like an engine, where you can have a model before you and can judge by seeing it working.

7178. You cannot show the working of your products at an exhibition?—No, you cannot; in that respect it is not like the engineering trade.

7179. And you certainly cannot show the wearing of a dye?—No, I am sure you cannot, although we tried to do that at St. Louis by showing dyed specimens.

7180. I understand you have suffered no disadvantages from your dyes being copied?—No. There is one point that I do not think I have mentioned in my heads of evidence, and that is the general apathy which exists amongst a large number of manufacturers in regard to exhibiting, especially in those countries where there are high tariffs. They say, and rightly say, if we were to exhibit there, the tariffs would prevent us from exporting to that country, where we might otherwise probably get some benefit in the shape of trade. This opinion prevails very largely amongst a certain class of manufacturers.

7181. It prevails very largely in the textile trades, does it not?—In the textile and in other trades. They feel that even if they exhibited, they could not get any substantial benefit, because the duties would prevent them from exporting.

7182. But they might be able to export into a neighbouring country. Take, for instance, Canada and the United States; by exhibiting in the United States they might show to the Canadian people what could be got from this country?—Yes, that would be so; and that was one of the reasons, perhaps, why we did exhibit at St. Louis. But, on the other hand, Portugal or France or Austria or Germany are largely closed to us.

7183. Do you attach any value to the awards which you have obtained?—We put them on our letter-heads.

7184. You do that still, do you?—Yes, we do that yet. It is a kind of advertisement; because, after all, the customer may probably think if you have been exhibiting in so many countries you must be a larger firm. The Americans, for instance, attach some importance to it.

7185. The Americans do, you say?—Yes. We find, for instance, that the "Grand Prix" which we got at St. Louis was rather useful to us in America. It was a good advertisement there.

7186. Have you ever been induced to buy from what you have seen at exhibitions?—Yes, we have.

7187. You have felt the use of exhibitions in that way, and have bought—machinery, I suppose it is?—Yes. I have bought machinery on several occasions from having seen it at the different exhibitions which I have attended, especially machinery which might be useful in chemical manufacture. For instance, we have bought machinery for making ice, of which we use fair quantities now in our own manufacture. Then we have also bought air-pumps, air-compressors, and such like machines which we thought would be an improvement in our manufacture; in fact, we buy foreign machinery now—filter-presses and such like.

7188. I suppose because it is more economical; or is it altogether something better?—With the development of the chemical industry in Germany *pari-passu* there has been a development of chemical engineering to a much larger extent there than has been the case in this country. Engineering is almost as important as chemistry, in some branches of the chemical industry.

7189. I should like to take you into the chemical industry, as I know you are a great authority upon it, but we have no time this afternoon to go fully into it. Anyhow, you have bought a good deal from having seen new machinery at exhibitions?—Yes.

7190. And would you say that you have derived instruction generally in the same way?—Yes, there is no doubt about it.

7191. I think you told me just now that you have not exhibited at one or two exhibitions on account of the tariffs?—I did not speak so much really on my own

behalf then. I was saying that generally there is an apathy amongst a large number of manufacturers about exhibiting in tariff-ridden countries, because, as I have said, they say, and rightly say, "We cannot derive any benefit from exhibiting, because we are prevented from exporting into those countries on account of the duties." That does not refer so much to me personally; but, speaking generally, I say that I have heard a great many people express that opinion.

7192. Among the reasons that have stopped firms from exhibiting, do you think that the question of the cost of exhibiting and the question of trouble of exhibiting bulk very largely?—Certainly. I combine them all together. There is the duty, the cost of exhibiting, and the trouble of exhibiting—and it is a great trouble—without seeing any adequate reward for taking all this trouble.

7193. You do not see any direct result?—No; and the benefit can only come indirectly. You ought to distinguish between exhibits to some extent. If you have a novelty which is not known to the world, or which has not been brought before buyers by your own travellers, then I think an exhibition is of very great value, because people coming from all quarters of the world, will see your novelty—probably in a working model, if you can show it by a working model, and, in that way, you get an excellent and a very quick advertisement.

7194. As regards Manchester and Manchester goods, is it not the fact that the manufacturers deal chiefly through merchants, and, therefore, are not inclined to exhibit themselves?—Yes, that is quite true.

7195. Speaking generally, would you say that is true of the textile trades?—Yes, that is true of them. Only the wealthy and large manufacturers have their own agents in foreign countries.

7196. Such firms, for instance, as Tootall, Broadhurst, Lee and Co., and one or two others who are merchants as well as manufacturers?—Yes. You may find that some spinners and manufacturers have their agents abroad; but, generally speaking, that the bulk of the manufacturers do not directly deal with foreign buyers, but deal with them through merchants.

7197. Can you tell us whether that tendency on the part of the manufacturers to deal through middlemen is on the increase or decrease?—I should rather think that it is on the decrease. I think some of the larger firms are more and more inclined to do business direct.

7198. I know they are?—Once upon a time, they would scarcely deal direct with any foreigner, because they thought he was not safe, and could not be trusted, and they wanted to have cash down as soon as they delivered their goods or as soon as the goods left their mill. I myself am largely interested in textiles in Austria; in spinning and weaving. I am connected with two large mills in Bohemia and Lower Austria, and I know we are now buying yarns direct from English spinners. There is another point. When trade was not as good as it is now in Germany and in Austria and other countries, merchants acted as bankers to the foreign buyer, and do so yet in many instances. A commission house would give credit to a foreign buyer for three, four, five, or perhaps six months, where the manufacturer himself would never dream of doing it, and often could not do it. That practice is passing away to some extent, and some foreign buyers are ready to pay cash.

7199. I suppose it means a second capital almost for the manufacturer?—Yes.

7200. To that extent they should be more ready to exhibit, should they not, so as to become known to the foreign buyer himself?—Yes, if they have a speciality to show, but a great many have not.

7201. Because they could not exhibit staples, and they have not got new specialties?—Unless they have specialities in design or some special cloth—special novelties in the construction of the patterns or the weaving of the patterns, etc., there is little to exhibit. Some manufacturers are afraid of exhibiting because their patterns or their designs might be copied by the foreigner. But if a foreign manufacturer wants to copy an English manufacturer's design, he can do so by other means and ways without an exhibition.

7202. Is there anything in the fact which we have heard as regards the Yorkshire and Bradford trade, that the fashion goods are not exhibited because they are made only a few months before they come into the market, and even if they were not copied their attraction would be decreased by being shown at an exhibition?—There may be something in it, but the curious thing is that if a Bradford manufacturer has any new patterns, any new colouring, any new designs, he or his agent sends copies of his designs, and so on, to his foreign customers. If the foreigner wants to learn anything about a new design he can get the information in another way. I believe there is a good deal of prejudice about it.

7203. But if these new designs are not exhibited, the foreigner has to take some trouble in getting them?—Yes, but it is not such great trouble.

7204. Now I think I will take you on the general question. As I understand, you are of opinion that the direct commercial results are sufficient to warrant His Majesty's Government in making grants to organise British exhibits?—I think that is the case.

7205. Do you lay more stress upon organisation than upon any direct money help?—Both are important. We have seen that in Paris. As I say in my heads of evidence, in Paris the British chemical manufacturers for example made a very poor show, on account of want of organisation and monetary support.

7206. Are you referring to the last Paris Exhibition?—Yes. We did not exhibit, because I did not think we had sufficient interest in exhibiting.

7207. I suppose that poor show that we made was rather to the advantage of Germany?—Yes. People came there from all parts of the world, and they looked at the German exhibit, and said, "Of course, we can only buy from Germany; England is not in it," and so on.

7208. I do not think Manchester has had any collective exhibit, has it, at foreign exhibitions; such, for instance, as Bradford has had?—No. An attempt was made in that direction at St. Louis, but in Paris they had not any collective exhibit.

7209. Do you think that collective exhibits of Manchester could be possible?—Amongst some branches of manufacturers it would be possible, but amongst others not. There is a good deal of jealousy amongst a certain class of manufacturers, who do not want to make a collective exhibit, because they say, "We are the greatest manufacturers, and we want to make a bigger show than our neighbour." But if pressure could be put upon those manufacturers by the Government, or by some official arrangement, I have no doubt about it that collective exhibits could be arranged in many instances, and that they would be of great value. They are far more instructive than single exhibits.

7210. If you have a collective exhibit there would have to be some sort of choice and control given to the authority which makes up the exhibit?—Distinctly.

7211. So that it could take only the best and could reject?—Certainly.

7212. I suppose that you would be in favour of the authority having that power?—Distinctly so. That ought to be the case in the interests of the exhibition. There ought to be a proper grouping and a proper classification. You ought not, for instance, put a patent medicine or Beecham's pills amongst the silk manufactures.

7213. We have had a good deal of evidence in that direction, and complaints from people who have said that their beautiful goods have been placed against something or other quite common-looking?—I think there is a great deal to be said against that practice, because it spoils an exhibition altogether.

7214. Are you familiar with the German method of organising exhibitions?—I cannot tell you much about it. I know it is done largely through their Chambers of Commerce.

7215. Never mind if you are not able to speak to it, because we have had a certain amount of evidence upon it. If you do not know about it, I will not trouble you?—I do not know much about it; at any rate, I do not know sufficient details to be of any use to you.

7216. Can you tell us anything about the French methods?—I really do not know sufficient of any methods of any foreign Government to be able to give evidence upon.

7217. As regards the St. Louis Exhibition, I think you might tell us a little about that which would be useful. What is your opinion of the organisation of the British section there?—The organisation was very much

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better than it has been at any other exhibition I have been to. The faults which one had to find were faults for which our Government was not responsible at all. Everything was very much behindhand at the opening, and consequently the British exhibits were not completed by the time they should have been completed. But the care which was taken of the British exhibits was satisfactory.

7218. Do you mean the care which was taken by the British Commission?—Yes; we had no reason to grumble. The only thing we might do in the future would be to let the men, attendants and officials, have a better knowledge of languages.

7219. Had you much to do with any of the officials of the British Commission?—Yes, I am referring to the special committee appointed of chemical experts.

7220. (*Mr. Malcolm Ramsay.*) Were the German attendants provided by the German Government?—As far as I know they were. They looked very much like Government men in the way they carried themselves and bore themselves; they looked very military. The German Government had done a great deal, and is doing a great deal to encourage a good representation of the industries of the country.

7221. (*Chairman.*) But, of course, we must remember that the German Government also interferes a good deal with private industry. I do not know whether you would like that in Manchester?—I do not mind a little interference, if it is for the benefit of the Exhibition.

7222. You do not mind a little interference, do you say?—No, not as long as it is reasonable.

7223. I am glad to hear it?—I am not talking now about myself; I am only thinking of what would benefit the exhibition. I distinctly do think a little interference very desirable. We derived considerable advantage, for instance, from the advice we got from the London Committee. There was a Chemical Committee, of which I think Sir Boverton Redwood was chairman. I would not have exhibited at St. Louis if it had not been for the support and advice we got from that committee. For example, we sketched our own designs; these we sent up to London, and the committee considerably improved those designs, and helped us in every way possible, so that it was really a pleasure to do the work.

7224. And you think that is the right line to work on?—Yes.

7225. That is, to have a technical expert committee under a Royal Commission?—Yes.

7226. Could the same thing have been done for textiles?—Why not? There is not the slightest reason why you should not have on the Royal Commission men who are representatives of that industry, and who could appoint special committees of experts. If you appointed on such committees representatives of large home trade and shipping houses which are doing trade in all parts of the world, dealing perhaps with 30 or 40 manufacturers, such people would be most useful people for securing a good show of textiles.

7227. Do you think a sufficient number of suitable people in Manchester would give their time to that sort of thing?—I think so. There is yet sufficient patriotism in Manchester. In my opinion a number of suitable men could be found, if the official authority would support them and appeal to them on the ground that our prestige as the greatest commercial and industrial nation is in question. Take Japan, there will be an exhibition in Tokio in 1912; it is of paramount importance that we should prove to the Japanese that we are the greatest commercial country, and we should accordingly make the very best show there that we can.

7228. Do you think in that respect you speak for Manchester—for the Manchester Chamber of Commerce, anyhow?—Yes, I am speaking for the Manchester Chamber of Commerce.

7229. You know a good deal of Manchester; do you think a sufficient number of suitable men there would be induced by motives of patriotism to take an active part in the organisation?—Not only on the ground of patriotism. Those who have really something good to show, I think, would, especially if they knew that the Government was in sympathy with them, and that the Government, or its official representatives, would assist and help them.

7230. I suppose that the older firms, the established firms, would be more likely to say, "We have nothing to gain by exhibiting, as we have already got our trade and our position"?—That is quite true. But there is a different aspect. If you put it to such people, "We want to exhibit, because we think it is for the prestige of the country that you should do so, and we will assist you," I feel quite sure that many of those people would be ready to exhibit who otherwise would not exhibit.

7231. I think you told me that you are in favour of a Royal Commission as the organising body in preference to the London Chamber of Commerce, or any committee assisted by that Chamber?—Yes, a Royal Commission, with special expert committees, would be very much better.

7232. You think it is better that the Government should start the thing?—Very much better, because the London Chamber of Commerce would not have the influence with Manchester, for instance, but a Royal Commission would have considerable power in influencing individual manufacturers to make a show. I certainly would prefer a Royal Commission, but, as I said before, you ought to have on that Royal Commission men who are representative of the different industries of the country, and who are practically acquainted with them.

7233. Do you attach any importance to having a small permanent nucleus between one exhibition and another, so as to get, to a certain degree, the same men at exhibitions each time, and also so as to keep the records?—It would be an advantage, because they would gain a certain experience from exhibition to exhibition.

7234. You had not any experience of the Milan Exhibition, had you?—No, we did not go to Milan.

7235. You did not consider the possibility of exhibiting at Milan?—I did not. I only exhibited in St. Louis because of the manner in which it was put before us.

7236. What happened in connection with that exhibition? Did you receive a circular from the Commission?—What happened was this: Sir Boverton Redwood, who is a friend of mine and a colleague. Mr. Tyrer and one or two more on the sub-committee, approached us directly and said, "You will have to exhibit; you must not stand behind the Germans. We will give you every help." I said at first, "It is no use to us. We cannot benefit by it. We are in America, and we have our own people, and our own house at Philadelphia and at Boston." Well, they pressed us, and they showed us what advantages they could give, and what help they would give us, and then I was induced to exhibit.

7237. Was that by personal communication?—Yes, largely.

7238. It would not have been any use, I suppose, if you had simply got a circular, because you would have put it into the waste-paper basket?—Probably.

7239. The Manchester Chamber of Commerce has no special committee for exhibitions, has it?—No; but we have a number of special sections competent to deal with exhibition matters, such, for example, as the chemical and engineering, iron, yarn, etc.

7240. Do you think in future exhibitions that a good deal of help would be afforded by the Manchester Chamber of Commerce?—I think it not unlikely all will depend on circumstances.

7241. I suppose you do not want to have these exhibitions very frequently?—No, because then they would become too big a nuisance and too costly. In regard to the exhibit at St. Louis, for instance, although the Government was most liberal, still it cost a few hundred pounds—without reckoning our own time—the engineer's time, the draughtsman's time, and the time of our people in the dye-house and elsewhere who were engaged on it.

7242. What did it cost, do you think?—I take it that directly and indirectly it cost us £400, and I should think the Government must have paid at least £200, because they found the case.

7243. What was the case which the Government found?—They found the case for the whole exhibit, and a very beautiful case in design and material.

7244. What else did the Government find for you?—They paid the freight out, and they provided for attendance.

7245. Did you not pay anybody there to represent you?—No.

7246. Was that exhibit in the nature of a collective exhibit?—Scarcely so.

7247. It was a general exhibit in chemistry?—Yes; but it was not what I understand to be a collective exhibit.

7248. You did not have to send your representative out there to look after your goods?—No.

7249. But this excellent sub-committee made arrangements to take care of your goods?—Quite right.

7250. (*Mr. Malcolm Ramsay.*) Were your goods all by themselves in one case, or had you any other firm's goods in the same case?—Our goods were in our own case exclusively, and a very large case, too, it was.

7251. (*Sir Isidore Spielmann.*) With respect to the St. Louis Exhibition, if you had not been offered some financial support by the Government, would you have gone there?—Certainly not.

7252. It was only the offer of that support which tempted you to go?—Certainly, and the appeal of my colleagues that we must exhibit. We are the largest colour manufacturers and aniline dye manufacturers in this country, and they appealed to us personally.

7253. What was the nature of the award that you obtained, do you remember?—The *grand prix*.

7254. And that, I suppose, is useful?—Not in England. In America it is of some use, because in America they pay more attention to it.

7255. In the course of your evidence, you have said that you see no reason why similar collective exhibits could not be made by other industries with the same good results?—That is my opinion.

7256. I take it that that applies to other trades associated with the Manchester Chamber?—Yes, trades with which I am personally acquainted or which come within the knowledge of the Manchester Chamber.

7257. Would you hold out some financial inducement to everyone?—If it is worth while. I certainly would not hold that inducement out to a small man who could not show anything special. I certainly would not offer him such help.

7258. (*Mr. Malcolm Ramsay.*) You were speaking just now of the apathy of manufacturers towards exhibitions; do I understand you to think that the apathy in many cases proceeds from the belief that exhibitions are of no good to their particular trade?—That is my opinion.

7259. And consequently, looking at exhibitions from the purely commercial point of view, they have a very small effect on certain branches of industry?—I would not go so far as to say on certain branches; in certain articles we had better say, because each branch may have a novelty.

7260. Looking at it still from the strictly commercial and individual point of view, may it be said that when the State spends, perhaps, a large sum of money in taking part in an international exhibition, it is spending the taxpayer's money on a form of advertisement which will not suit a good many traders, is it not?—That might be so.

7261. Would you go so far as to say that—speaking of course, from the individual point of view?—Perhaps you are going too far.

7262. I should like to have your opinion on that aspect of it?—As I said before, you will have to look at the general aspect of the question; you will have to look also at the prestige of the country.

7263. Would you say that it would be a bad thing for commerce generally if by international agreement all these exhibitions were discontinued?—It might be a disadvantage.

7264. You think it would?—Yes, and for a good many reasons. As I said before, if you have a novelty in engineering, or if you have a novelty in chemistry, or or if you have a novelty in any other industry which you have brought out perhaps recently, and which you have not yet had time to bring before the world, or before every nation, by your travellers or otherwise, then an exhibition is a most excellent advertisement, and may possibly be the quickest, too. I may give my own experience. I have bought machinery which I should not have bought had I not gone to exhibitions and found machines there which I considered to be better than what I had in my own works.

7265. And you would not have had an opportunity of doing that but for exhibitions?—No, because before I went to the exhibition I was not aware of the existence of that machinery.

7266. You do not seem to have exhibited at Paris in 1900?—No, we did not exhibit there.

7267. Perhaps you have told the Chairman why?—I had no interest in doing so, and nobody approached us.

7268. (*Chairman.*) I do not think you told me that. Were you not approached by the Royal Commission?—As far as I remember, no.

7269. (*Mr. Malcolm Ramsay.*) I suppose if you had been approached it would have been very much like the case of St. Louis over again—you would probably have sent an exhibit?—Probably.

7270. Supposing there was another exhibition five years hence, and they came to you and asked you on patriotic grounds, would you be prepared to do the same that you did at St. Louis?—Yes. If they appealed on patriotic grounds and at the same time promised support, for instance, in connection with the exhibition in Tokio in 1912, then I would be inclined to consider that very seriously.

7271. Could you indicate the sort of interval at which you think it would be reasonable for us to participate in another exhibition?—Ten years I think.

7272. You would not have this country go in for a big international exhibition perhaps as often as once in five years, would you?—No.

7273. Because it would then become expensive?—Yes. I think ten years ought to be the minimum interval between exhibition and exhibition.

7274. Speaking of the financial support which the Government should give the exhibitors, do I rightly understand you to think that it is more important to have an efficient organisation, and that that is the first necessity?—Yes.

7275. Actual financial help is of less importance than the value of the organisation and of the facilities which the Government can give?—The financial support is of importance—there is no doubt about that, and financial support you must give if you want to have the power to interfere, if you want to have the power of accepting or condemning certain exhibits, and if you want to have the power to group and properly classify the exhibits.

7276. Would you give financial support to exhibitors who have a direct interest in exhibiting, and for whom an exhibition is a good advertisement? Would it not be enough if you were to select them, and ought they not to consider it rather a privilege to be selected?—I should think it would not be fair financially to support them. A man whose interest really induced him to exhibit, I think, has no claim for financial support. But my own feeling is that in the case of people who are apathetic, and who have no interest in exhibiting, if the State wants to make a good show abroad or to keep up the commercial prestige of the country, then I say you will have to give financial support.

7277. (*Mr. Harris.*) Did you go to see the Paris Exhibition of 1900?—Yes.

7278. What was the impression that the British section there made on you generally?—It was very poor.

7279. Was that the meaning of your remark to Mr. Ramsay just now, that perhaps you would have been "soft enough" to go to Paris if you had been nicely asked?—If we had been asked in the same way that we were approached in regard to St. Louis, we certainly would have gone to Paris.

7280. When you said you might have been "soft enough" to do it, what had you in your mind?—As far as we were concerned, it was of no advantage to us. I am speaking now specially about myself, and not about the Chamber of Commerce. We have no works in France and we cannot export to France at all; the duties are so high there that we cannot export.

7281. And you see no way of doing business in France?—No; we cannot possibly do it, unless we erect works there. Some of the large German companies, our competitors, have works there, and that is the reason why they made a good effort; but we have no works in France.

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7282. You said you have works in Austria, I think?—Yes. I am concerned in works connected with textiles—spinning, weaving and dyeing—but not in our own particular business.

7283. That is, not in your own particular industry of aniline dyes?—No.

7284. Have you exhibited at any of the Colonial exhibitions?—No.

7285. Were you asked to exhibit at New Zealand?—No. Unless the Government would pay all our expenses we should not exhibit there at all, because it would be of no earthly use to us, as there is very little manufacturing going on there. There is a market in New Zealand for such articles as soaps, which we do not make; but for the chemicals, which we do make, there is no market, or very limited indeed.

7286. I rather gathered from your replies to the Chairman that you would wish us to understand that your idea of the best form of an exhibit is a collective exhibit in which the individual names would be mentioned, as in the case of St. Louis?—I do not want you to understand that generally. There are certain branches where it could not be done, but in another industry it would be preferable to have a collective exhibit. You will find it difficult, especially in this country, to get some manufacturers to submit to it, as there is a good deal of jealousy among certain manufacturers.

7287. Would you mind telling me roughly, just in order that I may understand your evidence better, what you did exhibit at St. Louis?—We exhibited, first, aniline colours; then the intermediate products required in the manufacture of aniline colours; then we exhibited silk, woollen, half-woollen and cotton goods dyed with the different specimens. We also showed exhibits of prints—coloured silks, as well as cotton—showing the application of the dyes to the various textiles. We tried to make it as instructive as we could, and we showed not only the aniline dyes, but also the result on the different materials.

7288. (*Mr. Algernon Law.*) You said, I think, that you were not disposed to go in for exhibiting at St. Louis, because you had factories, was it, in Philadelphia and elsewhere in America?—In Philadelphia and in Boston we have not factories, but we have warehouses. We do not manufacture in America, but we have a warehouse in Boston and also in Philadelphia, and we have our travellers there who travel all over the States. I have said that the duties really prevent a good many manufacturers from exhibiting; and you might put the question to me, perhaps, "Well, you have high duties in America?" In spite of that, the production of aniline dyes and fine chemicals is not yet sufficiently advanced in America, and in spite of the duty of 33 per cent., we can export to the United States.

7289. You said that exhibitions were useful for novelties?—Yes, they are.

7290. Because you can then introduce them to the world at large?—Yes.

7291. At the same time, you said people need not fear copying, because if you wanted to copy an article you could always go into the market and buy it. Does that not also apply to novelties? Will not the people who require new things be on the look-out for them?—It depends, you know. Supposing a novelty is brought out to-day—supposing, for instance, there is a new ice machine for using ammonia in place of sulphurous acid—if you were interested in it, you would perhaps have read something about it, but you would never have seen it at work. But you go to an exhibition where that ice machine is exhibited for the first time, and for the first time you see it working. In such an instance the exhibition is an excellent advertisement.

7292. As regards the exhibition at St. Louis you say it was a distinct success, by which I suppose you mean the British section?—Yes.

7293. Was that in all branches, or would you single out any special branch?—I certainly confine my remarks to the chemical exhibits in comparison with similar exhibits at the Paris Exhibition.

7294. In some of the sections you say that the exhibits were very poor?—They were; for instance, in textiles they were very poor.

7295. (*Mr. Wilson Fox.*) Do you think that the British exhibit in Paris was not a good one?—Speaking of our branch, that is so.

7296. At St. Louis you thought that it was good?—The chemical department there was very good.

7297. What is your opinion of the British exhibits generally at St. Louis?—Some of them were poor; the textiles, for instance, and I do not think machinery was represented properly.

7298. Taking St. Louis, and excluding the chemicals, do you think that the British exhibit at St. Louis on the whole was bad?—That was my impression. I would not call it "bad"; it was not comprehensive.

7299. I understand that it was not comprehensive, but how did it compare with other foreign exhibits?—I can only speak of my impression, and my impression was that it was not as good a show as we might have made, and that some of the German departments were certainly better than ours—even some of the Italian departments were.

7300. Would you say, generally speaking, that the British exhibits at St. Louis were not up to the standard of the foreign exhibits?—That is more than I can say. I will not go further than say that in my opinion it might have been still more comprehensive.

7301. Would you say that it did not do complete justice to Great Britain as a representative exhibit?—It did not quite do that.

7302. I gather from what you say that you would not exhibit at a foreign exhibition unless there was business in it?—I would not exhibit at a foreign exhibition as far as my business is concerned.

7303. Unless there was business to come out of it?—No.

7304. Therefore you would probably agree that, as regards the trades where it does not pay them to exhibit from a business point of view, there might be some reason for the Government giving assistance to those trades?—Yes.

7305. On the other hand, you would probably agree that where a trade found it paid them from a business point of view to exhibit, they should show at their own expense?—That is my opinion.

7306. Let me take the textile trades, with which you are so familiar in Manchester. It would not be easy, would it, to get up a large textile exhibit to send to a foreign exhibition?—No, it would be difficult.

7307. Would it?—At present, yes.

7308. The cotton manufacturer in Lancashire has no interest in showing at a foreign exhibition, has he?—"Cotton manufacturer" is such a comprehensive term. The big manufacturers of coloured goods who export, and there are a great many smaller men also who export to all parts, and I should rather think it would be an advantage to them to exhibit.

7309. Would you say that it would be to the advantage of the man who makes cotton piece-goods to exhibit?—In ordinary cloth, no, nor in ordinary yarn either.

7310. And that is, after all, the greater bulk of the manufacture, is it not?—Still, the coloured goods represent about 20 million sovereigns' worth exported.

7311. Do you think it would pay them to exhibit?—I think so.

7312. But, as a matter of fact, do they exhibit at these foreign exhibitions?—I am not prepared to say positively. I have certainly seen coloured goods.

7313. The Lancashire people do not exhibit much, do they?—No, they do not generally exhibit much.

7314. (*Chairman.*) The Calico Printers' Association would exhibit, would they not?—I think they would, and they would make a beautiful show, too.

7315. (*Mr. Wilson Fox.*) But take the cotton piece-goods?—In respect of fancy or figured goods, yes; but then figured goods are quite different to the ordinary plain cloth.

7316. Supposing we wanted them to show ordinary cotton piece-goods, the people in Manchester would have to do that rather from a motive of patriotism?—That is my opinion.

7317. It would not pay them to do it, and therefore the whole thing would mean for them unprofitable out-of-pocket expense?—Quite so.

7318. So that supposing there was a big international exhibition, and the promoters wanted to show staples, the Lancashire people would have to do that out of their own pockets, and they would get no benefit from it?—

I feel sure that if the Government took an interest in it, and there was a big show—take the Tokio Exhibition—and if the Government would take the trouble to approach the Lancashire manufacturers, there would be quite a number who would be induced under those circumstances to exhibit.

7319. But it would be purely on patriotic grounds, would it not?—Well, yes.

7320. Or largely so?—Largely; but, after all, it might be an advantage, you know, especially in Tokio, to show that there is better weaving, say, done in an English mill than can be done by the Japanese or by the Chinese, or by any other nation. To do that might, under certain circumstances, not be altogether patriotism.

7321. Then we get to this, do we not, that although individual makers or manufacturers might not be advertised, Lancashire and Manchester, as a whole, might be advertised, and therefore the exhibition might do the district as a whole good?—Very true.

7322. That is your point, I take it?—Quite true.

7323. As regards your chemicals, do you think that the showing of chemicals has done the British chemical trade good?—Yes, as far as prestige is concerned. In connection with the St. Louis Exhibition, I have had the opportunity of reading a great many of the German chemical papers, and I remember very well an article in one of them where it said, "After all, the British chemical industries are not dead." Then there were four long articles on a good many of the exhibits, and an account of the excellence and taste displayed, etc.; and, without being bragging or arrogant, I think one of ours was specially referred to.

7324. Then, as regards the chemical trade, you think there would be some advantage in certain good firms showing, not only for the purpose of advertising these firms, but for the purpose of advertising the British chemical trades as a whole?—Yes.

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7325. That is, you think there would be something in that if they exhibited really first-class goods?—Yes. If you please, you must distinguish here, because when you ask me about chemicals, I am, generally speaking, giving you an opinion with reference to our trade. But there is an enormous difference in the various chemical industries. There are, for instance, so-called heavy chemicals, such as the alkali manufactures, the soap manufactures, the acid manufactures, and so on. Then there are fine chemicals mostly organic, and ours belongs to the latter class.

7326. I will deal with your trade?—I would refer you to soapmaking. It is to their interest to exhibit. If you take people like Crosfield, or Lever with Sunlight soap, it is to their interest to exhibit anywhere.

7327. Because that particular trade is won by advertisement?—Yes. And another thing is that these goods are used everywhere. Soaps are used in New Zealand or anywhere, and it is to their interest to advertise them.

7328. I suppose you can create a sale in an article like soap simply by advertisement?—Yes.

7329. You may perhaps have a second-class sort of soap, and you can create a sale for it if you can put enough money into advertisements?—Yes.

7330. I do not wish to criticise the quality of any soap, but simply to put it to you that it is possible to create certain trades by advertisement?—Quite right; and without having any real speciality, but with ordinary good soap.

Sir ISIDORE SPIELMANN, a member of the Committee; further examined.

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7331. (*Chairman.*) I think you have been connected with several exhibitions, have you not?—Yes. I was honorary secretary and delegate of the British Commission, Fine Art Section, Brussels International Exhibition, 1897; director and delegate of the British Fine Art Section, Royal Commission, Paris International Exhibition, 1901; honorary secretary for London, Fine Art Section, Glasgow International Exhibition, 1901; honorary secretary and member, Art Committee, Royal Commission for the St. Louis International Exhibition, 1904; and director for Art, British Government exhibit, New Zealand International Exhibition, 1906-7.

7332. What have you to say as to Art as a centre of attraction at international exhibitions?—Art is invariably regarded as one of the most attractive features at every international exhibition. There can be little question of its educational importance to students of Art as a means of comparison, to say nothing of its great interest to the art-loving public. Other countries eagerly participate in the Art Section at international exhibitions, and Great Britain cannot well afford to abstain. International exhibitions are international competitions, and the success achieved by any country, in Art or in any other section, increases its prestige in the public estimation. Moreover, the names of artists who elect to be represented are kept alive, while those who are not to be found in the catalogue are likely to be forgotten.

7333. What have you to say about the past and present methods of organising Art Sections?—The Art Section is always a "collective exhibit." At the earlier international exhibitions the British Art Sections contained works that were mostly borrowed from private owners, and were termed "Loan Collections." These sections were, as a rule, good in quality, but were not representative of British Art of the time. Commencing with the Brussels Exhibition of 1897, and since then, the tendency has been to make the British Art Section representative of the Art of the time. In recent years very searching selections are made not only of the artists to be represented, but also of the works they send, so that the British school in its various branches may be presented at its best, and by the most representative Art only that can possibly be procured.

7334. Do you mean that there has been a limit of time laid down and that you would not allow us to send early Victorian pictures, as a rule?—As a rule the limit is now fixed at 10 years. I am of opinion that if contests between nations are entered upon the fact should be faced that it is our manifest duty that we should rigidly and fearlessly exercise our power of selecting works for exhibition, however invidious and distasteful that task may be; and that the arrangement of the works in the section, more particularly if the space be limited, should be displayed irrespective of fear or favour, to the very best advantage, with a view to our success in the competition. Unless we continue to act up to this standard I think all competition should be declined as likely to lead to disappointment, if not humiliation, from a national standpoint. At the last four international exhibitions the British Art Section has been all that could be desired. I would like to refer the Committee to some extracts which I have taken from the official reports—they are not very long—because I do not want the Committee to take my word for the statement that these exhibitions were so satisfactory. The four exhibitions I refer to were Brussels, Paris, St. Louis, and New Zealand. At the time of the opening of the Brussels Exhibition, "The Times," of July 29, 1897, said, "If our industrial section is ineffective in comparison with the display made by some other nations, the case is different in the department of fine art. Here a strong committee has worked well, and has devoted much time and boundless energy to make the section a success. The result has surpassed all expectations, and everybody, from the King of the Belgians downwards, has been surprised and delighted with the excellence of the British work. . . . It is pleasant, therefore, to record that the committee have brought together the best collection of modern English pictures and drawings that has ever left the shores of England." Then there is a short statement to the same effect from Mr. James Dredge, who was then the Executive Commissioner, to Lord Salisbury, who was then at the Foreign Office. He says: "In my first report of July, 1896, I referred to the impossibility of arranging for a Fine Art Section under the then existing conditions. Fortunately, these conditions were modified through the exertions of the President of the Royal Academy, by whose representations a supplementary grant of £1,500 was made to the Commission by the Treasury towards paying the expenses of a Fine Art exhibit; and, thanks to the Fine Art Committee, what was probably the finest display of British Art ever seen on the Continent added greatly to the value and completeness of the British Section. Ap-

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pended is a separate report on this subject by Sir Edward Poynter, the Chairman of the Fine Arts Committee, and in this report he fully alludes to this magnificent Fine Arts display." Sir Edward Poynter, in the report referred to, says: "That our section was generally considered to be the best was allowed on all sides, and not in Belgium only were flattering things said of it; the English Press was also unanimous as to its merit. The undoubted success of our Art display at Brussels came as a revelation to all those who were not previously acquainted with our Art, for it was in many respects the most admirable feature of the whole exhibition; not only to Belgium did this come as a revelation, but it was echoed throughout Europe." There is a very short reference to the excellence of the British Art Section at the Paris Exhibition contained in the report of the Commissioners to His Majesty the King (Vol. I., page 20): "Notwithstanding the conditions that prevailed at the time, a collection was made which was universally admitted to be the best of the foreign displays, and was not unworthy of the modern British school." The reference to the St. Louis Exhibition is contained in the report of the Commissioners to His Majesty the King (page 9): "The most important department in the British Section was that of Art. Thanks to the great zeal of the Art Committee. . . . the British collection of works of Art sent to St. Louis was, in the opinion of many capable judges, the best and most important that has ever been sent out of England, and was by common consent admitted to be the best of the foreign sections at the exhibition. It was thoroughly representative of the modern British school." In a letter of our Ambassador's, Sir Mortimer Durand, of November 18, 1904, he says: "The British Art Section was generally regarded as containing the best collection of pictures in the exposition." But more interesting still is a short report written by the Italian Commissioner for Art at the St. Louis Exhibition, Signor A. Apolloni, a very well-known man. Refering to our section, he said: "This section was perhaps the most remarkable of all; in my opinion it was certainly the most remarkable, both on account of the judgment with which it was selected, the value of the collection, and the aristocratic taste with which the pictures were hung. The English wished to exhibit to the public once more the principal works of their great artists, and to display the works of different schools, from the Pre-Raphaelites to the most celebrated portrait painters, from the water-colour painters of the older school to the more modern representation. There was nothing whatever common or commonplace; in this section, Art, in different forms, appeared in its highest manifestation." With reference to New Zealand, "The Times" and "Standard" and other newspapers in this country endorsed the opinion that the "Art Section is one of the best that has ever been sent from our shores. Certainly no Colony of the British Empire has yet received so comprehensive and representative a display of our school as that sent to New Zealand." Then there is an official report by Sir John Gorst, who went to represent Great Britain at the opening ceremony, which is much to the same effect.

7335-6. Now I think you have something to say to us upon the subject of the formation of the Art Committee?—Yes. The Art Committee is usually composed of the Presidents of the Chief Art Societies in Great Britain and Ireland (namely, the Presidents of the Royal Academy, the Royal Scottish Academy, the Royal Institute of British Architects, the Royal Society of Painters in Water-colours, the Royal Hibernian Academy, the Royal Society of Painter-Etchers, the Royal Institute of Painters in Watercolours, the Royal Society of British Artists, and the Royal Society of Oil Painters, the Honorary Secretary of the New English Art Club—they have no President—and the President of the Arts and Crafts Exhibition Society), and a few additional members having special knowledge of exhibition work. The Art Committee has always been given full control of its finance and its own arrangements. The Committee, as a rule, holds numerous meetings, usually from 20 to 30, many of them very protracted sittings of nearly four hours, at which they consider the selection of exhibits.

7337. (*Chairman.*) What do you say as regards the space which has been allotted to Great Britain?—The space allotted to Great Britain for Art at the last four international exhibitions may be described in the following manner: At the Brussels Exhibition, 1897, well situated but insufficient; at the Paris Exhibition, 1900, well situated but insufficient; and at the St. Louis Exhibition, 1904, it was very badly situated and very insufficient.

7338. Why was that?—Because Germany and France had been there in advance, and had secured the best positions and an amount of space quite disproportionate to ours. At the New Zealand Exhibition, 1906-7, the Art Section was well situated and sufficient. I would like now to refer to passages in the two Reports on the Paris Exhibition and the St. Louis Exhibition, which bear on this subject, which really is the most important point in my evidence.

7339. You mean as to your not getting space enough?—Yes. Sir Edward Poynter in his Report on the Art Section to the Royal Commission for the Paris Exhibition said:—"To Great Britain, in the section devoted to painting, drawing, engraving, and architecture, there were allotted 475 lineal feet, as against 900 feet to Russia, 880 feet to Germany, 780 feet to Italy, 600 feet to Belgium, 580 feet to Spain, 490 feet to Switzerland, and 400 feet to Portugal."

7340. Then we had less than Switzerland?—We had even less than Switzerland. Then he goes on again on page 9:—"The space set apart for the foreign fine art sections was not only altogether inadequate for a proper representation and display of their work, as compared with the French, but Great Britain received exceptionally unfavourable treatment in this respect."

7341. (*Mr. Wilson Fox.*) That was probably because we came in last?—Yes.

7342. Was it not, in fact, our own fault?—No.

7343. The Report speaks of "unfavourable treatment," and I want to know whether we applied early enough to have equal chances with the rest and were really given unfavourable treatment, or whether it was our own fault because we came in last?—It was probably owing to the fact that Great Britain had delayed the reply to the invitation of the French Government.

7344. That is what I mean. Do you think that we were the last applicants?—I should say so.

7345. Therefore it was not the fault so much of the people who allotted it as it was our fault in only turning up when there was no cake left to eat?—We must also remember that at many of these exhibitions they do apportion the space originally to certain countries, and only have to await the reply of the various countries to the invitations issued.

7346. (*Mr. Algernon Law.*) Perhaps, too, we required more space in other sections?—No, this refers to the Art Section at the Paris Exhibition, and I am only dealing with that section, of course.

7347. But may not the explanation also be that the space we required in other parts of the Exhibition was so great that to compensate the other countries they gave them more for art than they did to us?—I do not think so.

7348. (*Chairman.*) Do you think we were unfairly treated?—I do, and I want to show how it worked out.

7349. (*Mr. Malcolm Ramsay.*) That statement which you have last read to us is Sir Edward Poynter's, is it not?—It is signed by the Duke of Argyll and Sir Edward Poynter, the president and chairman of the Art Section. In the end, after a great deal of trouble, we succeeded in getting 783 lineal feet, equal to about 22 square feet per exhibitor. In comparison with the 22 square feet per exhibitor in the British section, France had 45 square feet, Austria 24 square feet, Belgium 51 square feet, Denmark 30 square feet, Germany 27 square feet, Holland 31 square feet, Italy 52 square feet, Russia 49 square feet, Spain 57 square feet, and Switzerland 31 square feet. So there you see we were very low down as regards the amount of square feet per exhibitor.

7350. (*Mr. Harris.*) May not that have been due partly to a lingering illusion that the British have no art worth exhibiting?—I do not think so, coming after the Brussels Exhibition of 1897.

7351. Do you not think that perhaps that lesson had not been sufficiently learnt?—They knew perfectly well that if we participated we should make a very strong display.

7352. You think they did know that?—Yes.

7353. (*Mr. Malcolm Ramsay.*) Are the square feet per exhibitor a very trustworthy test?—I think so.

7354. You could have a very high proportion of space per exhibitor if you had very few exhibitors, could you not?—Quite so; but we always state as early as we can the amount of space we shall require and the number of exhibitors we have, and we naturally expect that accommodation for that number will be reserved.

7355. (*Mr. Wilson Fox.*) Then you do send that statement in to the foreign committee or the foreign Government, early?—As early as we possibly can.

7356. That is, you send in a statement of the amount of space you want?—Yes, to the Director of the Fine Art Section.

7357. In this particular case did you have to refuse a large number of exhibitors in consequence of not getting the space?—No. What we had to do was to hang our works very high, and the whole of the effect of the section had to suffer in consequence.

7358. (*Mr. Malcolm Ramsay.*) You had it crowded more or less, and on the sky line?—Yes, we had it crowded. Then as regards the St. Louis Exhibition, not only was the space inadequate, but it was very badly situated. In the official report to the Royal Commission, signed by Sir Edward Poynter, he says:—"To Germany was accorded the best position in the left wing and to France a similar position in the right wing, both having a larger amount of space than was allotted to Great Britain. The space finally allotted to Great Britain, including that gained by blocking various doorways, amounted to 1,455 lineal feet in the Fine Art Section and 269 feet in the Applied Art Section."

7359. (*Mr. Algernon Law.*) Was any remonstrance made?—Yes. "A strong effort was made by the chairman to secure two additional rooms, but with only partial success, although it was understood that these had originally been promised to us."

7360. (*Chairman.*) Was that on account of the lateness of the application?—I should say so, partly. We might have had space situate in a very much better position in the Fine Art Section at Paris if we had made earlier application; still, they must have known perfectly well that Great Britain would participate.

7361. The lesson that you would draw is, I take it, that we must apply earlier?—Yes. To continue with Sir Edward Poynter's report on St. Louis:—"To reach the British Art Section from the Grand Entrance at the north side it was necessary to pass through the German and Dutch galleries. We laboured, too, under the disadvantage of being unable to reach our galleries on the south side, as, owing to their being a considerable height above the ground-level, they were for some time inaccessible to the public. The chairman, with the assistance of our Commissioner-General, made strong representations to the Exhibition authorities in regard to this drawback, and eventually succeeded in inducing them to construct a flight of steps from the lower level to our terrace." This was only done when the exhibition was half over.

7362. What is the course taken in the selection of the artist exhibitors and works?—The usual course is to invite the most eminent artists from very carefully-prepared lists to participate. Special works also are invited from the very best that have been produced during the previous ten years, irrespective of the standing of the artist:—Works in oil, water-colour, sculpture, architecture, and in black and white. The ten years' limit is usually a regulation of the exhibition. This system of selecting special works, though excellent in theory, is very difficult to work in practice. It is invariably determined that no Art Society should be invited to exhibit as a body, but that all works should be invited as the work of individuals, and not as representing any institution.

7363. What is your method of obtaining works of art from owners and artists?—The success of an Art Section largely depends upon the willingness of private owners and of artists to place their works at the disposal of the Art Committee. It is becoming increasingly difficult to borrow works from private owners, especially for exhibitions at a great distance from England. This is partly owing to the frequency with which these exhibitions occur. In 1897 but little difficulty was found in borrowing such works, but it has since then become more and more difficult. Here I should like to hand in a table showing the number of private owners and the number of artists who sent works to the Brussels, Paris, St. Louis, and New Zealand Exhibitions:—

	Brussels 1897.	Paris 1900.	St. Louis 1904.	New Zealand 1906-7.
Number of Artists represented - - -	259	282	501	511
Number of Private Owners who lent works	131	133	135	36
Number of Artists sending their own works	128	149	366	475

7364. Next I think you want to deal with the collecting, packing and transport of the art exhibits?—Yes. Art exhibits have to be collected from all parts of the country, and it is at this stage that injury to them sometimes occurs. When received in London they are packed by fine art packers in zinc-lined cases and forwarded from London to the Art Gallery at the exhibition, each consignment being in charge of a special officer. At the termination of the exhibition, repacking and redistributing the works, and winding up, generally occupy a considerable time. In the event of awards being given, their receipt and their distribution still further delay winding up. The decoration of the section, as well as its installation, the preparation of the catalogue, and the sales of works on behalf of artists, are undertaken by the country participating.

7365. I suppose you have to pay the customs duty when they are sold, in America, say?—Yes. The exhibition being regarded as a bonded warehouse, things sold pay the duty as they leave the exhibition. It is usual that the buyer pays the duty; it has nothing to do with the seller.

7366. Insurance is a considerable item in the cost, is it not?—Yes. Insurance for a very large sum has to be effected at an early stage, and before the insurance market is adversely affected, and this is one of the largest items of expenditure in the cost of the Art Section. The Art exhibits are insured against all risks—fire, marine, theft, damage, or total loss; and this is invariably done free of costs to private owners and artists. We always find it very difficult to insure our sculpture exhibits, as the premium is very high; and as regards works in plaster, we do not send them unless we send them at the sculptor's own risk.

7367. Because they are damaged so easily?—Yes. As a rule very little damage occurs, the chief claims upon the insurance companies being for broken picture glasses and damaged frames.

7368. Can you give us the ordinary picture premium and sculpture premium?—On the works sent to the Brussels Exhibition we commenced at 17s. 6d. per cent. and we went up to about 20s. per cent.

7369. (*Mr. Wilson Fox.*) Would that cover every risk?—Yes. For the Paris Exhibition we commenced at 20s. per cent., for St. Louis we commenced at 30s. per cent. and before we had finished the premium had gone up to very nearly 50s. per cent. owing to the very large amount that was being covered at Lloyd's by other exhibitors. On bronzes we had to pay £3 3s. per cent., and on marble about £5 5s. per cent.

7370. (*Mr. Harris.*) Have you the total there of the expenditure, say, for St. Louis?—Yes, I have some quite elaborate tables relating to every exhibition, which I propose to hand in.

7371. (*Mr. Algernon Law.*) Did you insure each individual picture?—Yes.

7372. Then you do not insure *en bloc* in the sort of way that Cook's, the tourist people, apparently insure luggage; they apparently insure to a large amount, and then, when you insure with them, they give you a certificate?—What we usually do is to take out a policy, say, for £100,000 or £200,000 as the case may be, and then we insure every work separately with our insurance brokers. Whatever we do not take up, whatever we do not cover, is struck off. I have here the statement of expenditure. As regards insurance, at the Paris Exhibition in 1889 the premium was only £1,225, at Chicago in 1893 it was £4,438, at Brussels in 1897 it was £1,200, at Paris in 1900 it was £1,400,

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and at St. Louis in 1904 it was £2,898. For the New Zealand Exhibition I can only give you the figures partially.

7373. (*Chairman.*) Is that expenditure on the Art Sections at these different exhibitions taken from a table?—Yes.

7374. It would be an interesting table to print, if you could hand it in?—Certainly. I will also hand in a table showing the number of works exhibited.

The witness handed in the annexed Tables. (*See Appendix No. II., pp. 313-314.*)

7375. (*Mr. Malcolm Ramsay.*) Can you tell us what proportion the insurance bears to the total cost?—I could not strike the proportion for New Zealand, because I have not got all the other figures. The insurance for St. Louis was £2,898, and the total expenditure was £12,188. At the Brussels Exhibition the insurance figure is one-third of the total cost.

7376. (*Chairman.*) Now we come to the installation; what have you to say to us about that?—At the Brussels, Paris, St. Louis and Christchurch exhibitions, all the pictures were hung, and everything was complete in every detail on the opening day of the exhibition in the British Art Section; and the only catalogue to be had in the Art Palace on the opening day at each of these exhibitions was that relating to the British Section. For a considerable time after the opening of the St. Louis Exhibition, ours was the only catalogue in the Art Palace. Not even was the American catalogue ready; it appeared only in June or July, I think. For the Christchurch Exhibition the hanging was done in London prior to the works being dispatched, and carefully prepared plans showing the positions which the pictures should occupy on the walls were sent out with our representative, and this arrangement was strictly adhered to; the important work of hanging was thus not left to chance.

7377. Have you any figures that you could put before us in reference to the sales of British Art exhibits?—From experience gained at several international exhibitions, I am of opinion that many of our British artists fix the prices of their works at figures which do not encourage purchasers. Foreign artists of the first rank fix the values of their pictures at these exhibitions at more moderate prices, and consequently their works, as a rule, more readily command sales. At the Brussels Exhibition but few pictures were sold; at Paris hardly any; at St. Louis we sold for over £7,000—an amount that approached the total value of sales in all the other foreign sections, while at New Zealand we have sold for close upon £17,000. This I believe to be by far the largest amount ever taken for modern British works of Art at any international exhibition.

7378. Were the prices fixed by the British artists lower, do you think, in New Zealand; have they learnt their lesson, do you think?—For that exhibition works were selected purposely of moderate size and of moderate price. I do not know whether that has had anything to do with the sales; but the sales have been exceptionally large.

7379. (*Mr. Wilson Fox.*) Some were bought for Australia, were they not?—Yes. I have here the details of those sales, which I can hand in.

7380. (*Chairman.*) Perhaps you can tell us now what the total expenditure of the Art Section was at each of the exhibitions?—I can go back to the London Exhibition of 1862, if that is interesting?

7381. I do not think we need go back so far as that at the moment; we have been taking the last four great exhibitions, which are really the modern sort of exhibition?—At Brussels in 1897 the total expenditure was £3,380, and that was perhaps the best and strongest Art Section of the whole lot. But I ought to say that there I acted as hon. secretary, which reduced the cost of the staff, as they usually have a paid secretary, and that there were no office expenses on that occasion; consequently the cost was exceptionally low.

7382. So that it hardly a fair case, is it?—Hardly.

7383. (*Mr. Malcolm Ramsay.*) Does the figure you have just given us include general expenses?—It includes collecting, packing, transporting and redistributing the exhibits, insurance, decoration of section, and installation, salaries, wages, etc. The salaries and wages (which were for clerks) at Brussels in 1897 only amounted to £400.

7384. (*Mr. Algernon Law.*) Do you see any reason why a commission should not be charged on sales, so as to meet the expenditure incurred by the Government in assisting the Art Section?—Do you mean deducting it from the artists?

7385. Clearly money has been gained through the instrumentality of the exhibition, and I should think the sum of £17,000 would make the Treasury officials' mouths water?—I ought to say that from that £17,000 10 per cent. will be deducted by the exhibition authorities.

7386. (*Mr. Wilson Fox.*) What for?—It is the rule of almost every international exhibition to do that in order to cover their expenses.

7387. (*Chairman.*) And you think it would not be fair to take another slice?—It would be most unusual.

7388. (*Mr. Wilson Fox.*) They tried it on in New Zealand for the income tax, did they not?—They tried to deduct a further sum for the income tax, but that was strongly opposed, and it has been dropped.

7389. (*Chairman.*) Was it the Treasury out there who tried to do that?—Yes.

I would like to say with reference to the Brussels Exhibition, where we made the strongest display that I think we have ever made abroad, that the Chairman, Sir Edward Poynter, on his own account induced the Treasury to give £1,500 towards a special grant, and he and I together collected £1,100 from our personal friends, which left a deficit of £785, which the London Chamber of Commerce gave from the Government grant that they had received.

7390. A Government grant they had for the general purposes of the exhibition?—Yes.

7391. The London Chamber of Commerce managed the exhibition at Brussels, did they not?—Yes.

7392. You consider, do you not, that the cost of the Art Section must be defrayed from a Government grant or from some special fund?—Yes. Considering the great effect produced, Art Sections at exhibitions are neither costly to promote nor expensive to maintain; but inasmuch as the artists never contribute to their promotion in any country, the cost of the Art Section has invariably to be defrayed from a Government grant or from a special fund.

7393. What do you say about the constitution of the juries?—In the constitution of international Art juries, the exhibition regulations usually specify that the country in which the exhibition is held should be represented by an overwhelming majority of jurors. Thus in the Art Section of the Paris Exhibition in 1900, the jurors in Class 7 (Painting) numbered 66 members, of whom 39 were Frenchmen, no other country being represented by more than two jurors, and the majority by only one. Sometimes one juror is appointed for every hundred exhibitors represented, but this is not often the case. It is obvious that when jurors are brought to examine a work, seen by most of them for the first time, it is difficult for a crowd of 60 and more clustered round a picture to judge efficiently the merits of a work of which they can only obtain glimpses.

7394. I should think that is quite true?—Moreover uncertainties are inevitable in international contests of this kind, where the majority of the jurors are probably ignorant of the careers of most of the artists, and have to form an opinion upon the respective merits of the works, or it may be a single work, they see before them.

7395. I think you consider competitions for awards should be optional?—The matter of awards presents some advantages, but also many disadvantages. The younger artists are always eager to obtain them, because they have yet to make their reputations. In the case of other artists whose reputations are already made, who have perhaps received the highest honours which their own and foreign countries can bestow upon them, and who may possibly be contributing works executed at a period of their lives when they cannot be considered as painting at their best, they at least should not be forced to submit works to the international jury. It can hardly be expected that justice is always done at these international exhibitions. Artists of established eminence may very possibly be represented, and frequently are, by works of minor importance executed in the declining years of their fame, which may not justify their claims in the eyes of foreign judges unacquainted most probably with their life's work; whilst, on the other hand, an artist of inferior worth may happen to be represented on the

same occasion by a work of greater effort and attractiveness. At the St. Louis Exhibition, for instance, it was not permissible, by the regulations, to withhold individual works from competition.

7396. I thought in every exhibition you could mark an exhibit *hors concours*?—They could not there, and the result was that we had to withhold the entire section; there was no alternative. France also withheld her section for the same reason. At the St. Louis Exhibition—this is rather an interesting point—a loss to the British Art Section was the absence of the works of many eminent artists, who were prevented from exhibiting with this country by virtue of their American nationality; and many of them actually sent their works to the American section, thereby competing against us. I do not know whether you would like me to give you the names.

7397. One can guess at one or two?—There are about 20 of them.

7398. I do not think we need have the names on the notes?—If we had been competing for the awards, we should have had some of our most eminent artists, including a few Royal Academicians, competing against England. In the matter of awards, it must not be forgotten that awards given in the Art Section have a totally different value to awards given in the industrial sections. Unlike the industrial sections, where every exhibit is almost certain of an award unless it is an absolutely bad exhibit, awards given in the Art Section are but few in number, and are consequently of greater value. The highest ordinary award in the Art Section is the gold medal, but the silver medal is considered a very high and a very important award. Many of the French artists of the highest importance have never received anything more. The *grand prix* is a very exceptional award in the Art Section, and is usually given in consideration of an artist's whole career, and at the supposed period of his highest attainment.

7399. What system of conferring medals is adopted by the International Jury?—International Art Juries employ one of two systems of conferring medals. The one system is not to limit the number conferred; the other system is to limit the number to be awarded. The first course is the fairer, but to my mind the latter course is not only objectionable, but in many cases most unfair. The limitation of awards tells very seriously against an exhibition where there is remarkable uniformity in the average of excellence in the works exhibited, and to allot the few medals at their disposal to a few selected pictures, leaving others of equal merit without awards, merely because there are no more medals to give, is unjust and absurd.

7400. When they limit the number of medals do they award so many to a country, and let that country decide how to place them, in order to do away with any international intrigues for getting medals?—I do not think they award any specific number of medals to any special country. They decide at the start that they will give, say, 20 or 30 gold medals, and then they apportion them by vote among the various countries represented. The system that is followed in many cases of deciding how many medals they will give as the starting point is a very bad one, and, I think, is another reason for withholding the section from competition.

7401. Do you mean that you would like to have no medals given in the British Art Section?—After some experience of international exhibitions and the methods of awarding medals in connection with them, I have great doubt of the advisability of our entering into competition for awards at all, although I have none whatever as to the value of a nation's participation in the exhibition, and I come to the conclusion that we should best consult the dignity of our artists by withholding the entire Art Section from competition. For, although a competition with other nations may be interesting, I hold that it is hardly dignified that artists of world-wide reputation should be competing among themselves for medals. It is not the custom for scientific men and other eminent professional men to compete for awards, and our artists should, in my opinion, follow their more dignified example.

7402. Perhaps we may now turn to what you have to say about the results?—With reference to the results achieved in the Art Section at international exhibitions, I would say that it is impossible to gauge success merely by the value of sales. Its success can only be measured later, if at all. The new reputations made, the new seed that has been sown, and the lessons that have been taught and learnt, have also to be taken into account. There are many reasons why British artists should participate in these international exhibitions, quite apart from the question of the sale of their works or from the question of awards. As a result of international exhibitions, works by British artists have been purchased for the picture galleries of the Luxembourg at Paris, for Berlin, Düsseldorf, Munich, etc., while art galleries of Australasia have sent their representatives to select and purchase works at the recent New Zealand International Exhibition. As the result of exhibiting a portrait in the British Art Section at Brussels, one of our eminent artists received a commission to go over to Brussels to paint the portrait of a distinguished lady, and this commission led to many more, and at English prices. As a result of the British Art display at the St. Louis Exhibition, modern British pictures are now better appreciated in the United States. In proof of this I may quote the following telegram from "The Times" of March 16, 1906: "English Art in New York.—Our New York Correspondent telegraphed last night: 'Sir L. Alma Tadema's *A Sculptor's Studio* was sold at an auction in New York last evening for $23,100 (£4,620). Recent sales here have shown a growing appreciation of modern English pictures.'" That, we think, was the direct outcome of our participation at St. Louis. I think the most important result of all of a successful Art Section is that it frequently helps to score a success for the British Section as a whole—I mean when the Industrial Section is perhaps a little weak. I have some further notes with reference to the results of the New Zealand Exhibition. This is an extract from the "Lyttelton Times" for April 15, 1907, which gives more information of the exhibition than any other paper: "British Arts and Crafts will have a lasting effect in the homes of the people of Canterbury, at any rate. . . . Quite a large number of people have written to the manufacturers in England with the object of obtaining articles such as those displayed at Christchurch. . . . From all points of view the gallery has been a great success. The attendance compares very well with that at the St. Louis Exhibition, and the Colonial public has expressed its admiration for the gallery's treasures in a most practical manner, the sum of £15,362 having been spent in purchasing pictures and other works of Art." This is referring to an earlier date that my own figures go down to.

7403. It is £17,000 I think you said now?—Yes.

7404. What suggestions for improvement have you to make?—With reference to possible improvement in organising British Art Sections at international exhibitions, any change that would prevent the delay in organising an Art Section in its initial stages would greatly assist any Commission or Committee charged with its formation. At present the delay very seriously threatens the prospects of a successful result. To prevent this in future I would suggest that a permanent department should control all the British Sections, including Art, so that the moment the Government decides to participate in an international exhibition, the Art Committee could at once get to work and secure good and ample space. The Chairman of the Art Committee should always be the President of the Royal Academy for the time being, and his committee should have full control of the Art Section and of its financial grant, as heretofore. A special department exists in France for the organisation of Art Sections at international exhibitions. I have references here to that French department which I will put in with your permission (*handing in same*). (*See* Appendix No. III., pp. 315-316.)

7405. Do you want a standing committee or a special committee appointed for every exhibition?—I should not have a standing committee especially for Art.

7406. You mean that you would not have a special permanent committee?—No, not a special committee for Art. I may say that the French Government has a permanent office for Art under the control of the Minister of Fine Arts, but that again is controlled by their department relating to international exhibitions on the Continent

7407. And, I take it, it would be quite outside the *société* or *comité* that we have heard of which contains most of the commercial people and the other sections?—It is quite outside that. The time required to organise an exhibition is considerably greater than it takes the exhibition to run, and the process of wind-

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ing up is an equally long operation. The time between the closing scenes of the one and the opening scenes of the next is often very short, so that a permanent department, if one were established, would not long remain idle. It might even be utilised for other purposes in between. If it can once for all be decided that it is beneficial to this country to participate, or if we decide that our country cannot afford to be the only one to hold aloof from great international exhibitions, then we should start fair at these exhibitions in competition with other countries. Another possible improvement in organising the British Art Section is one which I tried with success in connection with the New Zealand Exhibition. On that occasion, when I acted alone, I measured the lineal space, and carefully calculated the amount that might fairly be apportioned to each school of painting in the oil and water-colour sections. I then enlisted the assistance of the presidents of each Art Society. The presidents being intimately acquainted with the members of their societies and their best works, were thereby able to offer suggestions with respect to artists or their works.

7408. Was that the way that you got most of your pictures at the last exhibition?—Yes.

7409. You were very successful with the others; how did you get the pictures then, generally speaking?—As a rule, it is the large committee, the Art Committee, which determines who should be invited and which work should be invited. At the New Zealand Exhibition I rather subdivided that work, and I got each president of each society to help me in either nominating the artists or nominating their works; each Art Society formed a sub-committee, as it were.

7410. I suppose you have a number who volunteer and who are not always the best?—Those always come before the committee. They have to be judged, and the great bulk of them of course rejected.

7411. (*Mr. Wilson Fox.*) Following up what you have said about the New Zealand Exhibition, and the way in which you prepared the Art Exhibit, did you not find, as a matter of fact, that when you managed it and practically organised it, the path was rather smoother, because there was less jealousy of a man like yourself who is not an artist taking it up than there would have been if a particular Art Society had endeavoured to run the getting up of the exhibit?—I think that possibly facilitated my work.

7412. You were in a more independent position, and there would not be that jealousy when anybody in your position was acting which there would have been if an Art Society had been acting?—Perhaps.

7413. I put it to you that that might have been so?—I think it might have been so.

7414. Now with reference to the New Zealand Exhibition, which, so far as regards the artists, was so very sucessful, a rather new procedure was adopted; there was no Royal Commission, and you practically had a free hand in getting up the Art Exhibit?—Yes.

7415. You found that work very satisfactorily, did you not, not being hampered by committees—or assisted by them, as the chairman suggests?—That is a little difficult to answer.

7416. There was a sub-committee, but they practically left it entirely to you, and in the end that was found to be very satisfactory?—I found it went very easily, and I may say very quickly. The saving of time in organising this New Zealand Art Section was certainly very great.

7417. And, as a matter of fact, the result was most satisfactory, because you sold more pictures at that exhibition than at the others?—It has been very satisfactory in that way. But I think the most satisfactory point about the whole thing has been that there was no delay at the start, and that the work was all done in as many weeks as it has formerly taken months.

7418. (*Mr. Algernon Law.*) We are here chiefly considering whether Government grants are justified by the commercial results, and, therefore, I should like to know how Art comes into the commercial side. Do you think that an exhibition is made a success by the fact that there are good pictures to be seen at it?—I think so.

7419. You think that they attract more people?—I think the Art Section is the most attractive feature.

7420. Then you think the justification for paying so much towards the Art Section is that it attracts people to the whole exhibition?—I think it is a very attractive feature to a great many who go to exhibitions; but as regards the commercial side, till this last exhibition we have had no commercial result to speak of from the sales in the Art Section.

7421. (*Mr. Harris.*) With reference to that commercial result which you have just mentioned, do you not think that it is questionable how far we have been justified in giving a number of our artists an opportunity of getting a special sale for their pictures at the public expense?—From the commercial standpoint, I think that is an open question, but as it always helps to make an exhibition attractive, and as the artist is not usually a man who can afford to pay much, if anything, towards the installation, I think it is an advantage that cuts both ways, and that it helps the exhibition quite as much as the artist.

7422. It seems to me pretty clear from your evidence that the artist appreciates it, because I notice from the figures that you gave that the artist exhibitors have been rising in number as compared with the loan exhibitors—in New Zealand, for instance, you had some 400, I think?—There we had 475 artists exhibiting and only about 30 private owners. But that may be on account of the very great distance, and because private owners are unwilling to let their things go so far.

7423. Do you not think that probably what influences the artist is that he really feels that he has got exceptional advantages which perhaps he would not get elsewhere?—That may influence him sometimes, but we also have occasionally the greatest difficulty in inducing an important artist to send, and then we have to fall back upon the private owner if we want a representative work of that particular artist.

7424. Has it struck you that in selecting for exhibitions, particularly abroad, you take a considerable risk in this way—that the committee composed of the President of the Royal Academy, and so forth, select what appear to them to be the best things, but that it does not necessarily follow that the pictures rejected will not be the things that really would tell abroad—I mean, tastes differ?—Yes; but then the committee consists of so many members of different views that they are all likely to prevail in some instances, and care is taken now to send representative pictures by members of the New English Art Club, and of the impressionist school.

7425. That brings me to another point that I was going to ask you about. You speak of the difficulty that you had at St. Louis owing to the regulations which compelled every artist to submit his works to the jury, but could not your selection have made it possible beforehand to avoid any difficulty of that sort? Should you not, I mean, have been able to avoid the two difficulties you have mentioned—first of all, taking the works of a man at his worst period, and then, secondly, of taking the works of a man whom you really did not like to put in competition at all?—At an early stage at St. Louis we tried to induce the exhibition authorities to concede that point, that we might be allowed to withhold works of certain artists who would not compete; but they would not give way. Thereupon we said, if that is the case the whole section must be withheld from competition.

7426. Was that before you went out?—Yes; it was even before we invited artists to participate.

7427. So that was quite early?—Yes.

7428. (*Mr. Malcolm Ramsay.*) Is there any charge made for space in the art galleries?—To the artists?

7429. To the section?—No.

7430. I cannot find it mentioned in the accounts?—You would not; it is always given.

7431. There is a charge in the Industrial Section, but in the Art Section you say the space is given by the exhibition authorities?—The space is given free, but the rooms are given in an unfinished state, and we have to decorate them and finish them at our own cost.

7432. Returning to the question of payment, is it not the case that a comparatively small charge to each exhibitor would have made the Art Section practically self-supporting at any of the recent exhibitions?—I do not think you would get the artists to do it.

7433. Perhaps you can tell us what the cost per exhibitor has been at the last four exhibitions we have been particularly considering?—At Brussels, 1897, the cost per exhibitor was £13 1s.; at Paris, 1900, £19 1s. 6d.; and at St. Louis, 1904, £17 5s. 3d. I have not yet the completed expenditure of New Zealand,

so that I cannot give you the figure for that exhibition. I may say that at the Chicago Exhibition, which was held in 1893, the cost per exhibitor was £22 per head.

7434. So, assuming that the State thought it reasonable to make the artist pay something towards his free advertisement—I am putting it in a brutally Philistine way—a sum of £5 or £10 would go a very long way towards paying the cost of the British Art Section?—It would, but it would be an innovation, and I doubt very much whether they would not refuse to participate.

7435. (*Chairman.*) These pictures are not all exhibited by the artists; a lot are exhibited by the owners, are they not?—Quite so.

7436. So if the charge was made all round the owner would have to pay this £17 or whatever it was; or if the artists only paid, it would come to a great deal more than £17?—Yes. We go to work in this way: Before going to the owner at all for a picture, the artist is invariably communicated with first, and he is asked by which work or works he would like to be represented? so that it is really the artist who is the exhibitor, not the owner.

7437. But you have to get the picture from the owner?—We have to get the picture from the owner if the artist wishes it done that way.

7438. And the person that Mr. Ramsay wishes to tax is the artist?—Yes, I see that.

7439. (*Mr. Malcolm Ramsay.*) The charge could only be made in the case of artists who were exhibiting their own works directly for sale. You could not contemplate a charge upon a loaned picture, because that would be impracticable. I only wish to bring out what was the actual average cost, and that you have very kindly given us?—The figures all appear in one of the tables which I have handed in.

7440. (*Mr. Harris.*) You would perhaps be inclined to say that we must not treat the artist too commercially; after all, he is an artist?—He never has been treated in that way. The Art Section, as it is always styled, is quite apart from the industrial or commercial side, and the artist has always been treated unlike an ordinary exhibitor.

7441. In that connection, would you mind telling us whether these 475 artists who sent to New Zealand are any of them quite young or unknown men?—A few of them are practically unknown to the general public. It often happens that if an unknown man, or a comparatively unknown man, has produced a brilliant work, we would go for the work quite irrespective of the standing or the position of the unknown man.

7442. And you would give him his chance?—Yes. But, as a rule, it is not regarded as the right opportunity for a young artist to make his professional *début* at an international exhibition. The space is so limited that we prefer to get in those artists whose reputations are renowned.

7443. Still, if you are trying to make an exhibition of living British Art, is it not rather a great thing to get the men who are just coming up, and who are putting the real life into it at the minute?—Yes, and that is the present method. It was done at St. Louis, and it has also been done at New Zealand.

7444. (*Mr. Malcolm Ramsay.*) I suppose there is always a very large crowd of visitors in the British section?—It is always one of the most crowded sections. It is a section which, I think, is attended by larger numbers of people than any other.

7445. (*Mr. Harris.*) You say it is always one of the most crowded, but you mean that that has been the case comparatively recently, do you not, because it is really almost a creation of your own. Does it not date from the Brussels Exhibition of 1897? Did anyone hear of pictures at an exhibition before Brussels?—Yes. They had good sections at Philadelphia, and also at Chicago, and both of those were before I became associated with this work; but they were not representative of British Art of the time.

7446. (*Chairman.*) I recollect that you offered to give us some figures for the exhibition of 1862, so that your evidence went as far back as that?—Yes. Very often the section has been composed of very fine works, but going back a very long time, and not representative of the Art of the time.

There is a matter I want to refer to, which I ought to have mentioned earlier in my evidence, and that is with reference to the Arts and Crafts exhibits. Both at the St. Louis Exhibition and at New Zealand the Arts and Crafts exhibit were taken in with Fine Art. For the first time, it was done at the St. Louis Exhibition.

7447. I should like to ask you a question on that. Do you approve of Applied Art—and we might almost say that a good deal is Applied Art in the Arts and Crafts exhibits—coming under your section?—I would certainly not mix Applied Art works with pictures and for his reason—they are usually the result of mechanical processes, and that is, as a rule, even against the regulations of the exhibition, according to which nothing may be exhibited in a Fine Art Section which is the result of a process.

7448. Would even hand-painted china be excluded? Painting on any material was eligible at St. Louis in the Art Section?—There they abolished the expression "Fine Art," and called it "Art Section."

7449. So that certain things among the Arts and Crafts exhibits would be eligible?—Yes. Take the man who makes most beautiful glass bottles, which may be very artistic in shape; the shape would be the only thing that would entitle them to come into the Fine Art Section, and the fact of their being manufactured articles makes them ineligible according to the regulations of the exhibition.

7450. Do you think that is right?—I think it is right. That is one reason for excluding photography, which has a much stronger claim to be exhibited with the Fine Art Section. Photography is always excluded, because it is a process.

I do not think I have fully answered the Chairman's question to me whether I think the Art and Crafts exhibits should come into the Fine Art Section. I would say yes, under the same roof, but not mixed up with either pictures or sculpture.

7451. (*Mr. Malcolm Ramsay.*) What about enamels; are they not a process, too? Do they come in the Fine Art Section?—No; they come in with Arts and Crafts.

7452. (*Mr. Wilson Fox.*) You have not been asked this question, I think: How often could you get up a successful exhibit of pictures? How often do you think artists would send their pictures to you? Do you think you could get up one every year or every two years, supposing you had the leisure to do it?—It could be done with great frequency. Artists know that an exhibition is an opportunity to sell their works—that is, if you take them from the studio and do not borrow them from the private owner; and, therefore, they are usually very willing to participate—at least, the great majority of them.

7453. It is quite a different thing to showing the exhibits of traders?—Quite.

7454. And, of course, the artist's pictures are different every year, and he has got a new commodity to show every time?—Yes.

7455. Do you attach importance to the showing of British pictures, from the broader point of view that British Art, as a whole, should be represented in a foreign country, in order to prove that Great Britain is an artistic country, and can produce Art works, just as the French can, say?—Yes, I attach the greatest importance to it.

7456. And in the case of pictures, there is not only the artistic point of view, but they show foreigners in other capitals what English scenery is like and English buildings?—That is so.

7457. So that pictures may be said to demonstrate England?—Yes. Prior to the exhibition at Brussels in 1897, it was often thought that anything was good enough to put into the British Art Section at foreign exhibitions, and it was no uncommon thing to see foreigners ridiculing and laughing at our pictures. But ever since the Brussels Exhibition of 1897, they have the greatest respect for British Art.

TWENTY-FOURTH DAY.

Thursday, 20th June 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Isidore Spielmann.
Mr. S. J. Waring.
Mr. U. F. Wintour (*Secretary*).

Sir Henry Austin Lee, K.C.M.G., C.B., called and Examined.

Sir H. A. Lee, K.C.M.G., C.B. 20 June 1907.

7458. (*Chairman.*) I think you have been Commercial Attaché at Paris for some years now?—Yes, for eleven years.

7459. Even before that you had a considerable experience of Paris, had you not?—Yes. I had practically a good deal to do with the commercial work of the Embassy previous to being appointed Commercial Attaché.

7460. What we specially want you to help us in to-day is to enlarge somewhat the information which you were so good as to send us upon the French system of conducting exhibitions, and of assisting the French exhibitors who exhibit at international exhibitions abroad. You have already been good enough to send us in several documents and a Memorandum on the French participation, The first thing I would like to ask you is, on what principle does the French Government act when an invitation is received asking them to participate officially in an exhibition which is about to be held in a foreign country?—I do not think I can do better than give you a translation of the information given to me by M. Picard, who was the Commissioner-General of the Exhibition of 1900. In reply to the question, How is the *Commissariat-Général* constituted, and what are its functions, he says "In principle the *Commissariat-Général* of the French Government is only appointed if the French Government itself has been invited officially by the country where the exhibition is held; and, consequently, only if that exhibition depends more or less directly upon the Government in question. The decree which was issued at the time of the appointment of the Committee for the Exhibition of St. Louis in 1904 shows the exact way in which the Commissioner-General is appointed, and defines his powers."

7461. Supposing an invitation is received, what is the first step which the French Government takes?—The first step is that information is received by the French representative abroad, who transmits it to the Foreign Office, but the ministry which deals with exhibitions is the Ministry of Commerce, the Foreign Office consult with the Ministry of Commerce as to whether the Government should take part in the exhibition.

7462. Could you tell us what is the actual department which deals with these matters?—It is one of the departments in the Ministry of Commerce.

7463. It would be quite a small department, then?—Yes.

7464. What do they do between times? Do they do anything else but decide about exhibitions?—Questions relating to exhibitions form only a small part of their work.

7465. Can you compare it with any department in the Board of Trade here, or in any other branch of our Government?—It would be like a branch of your Commercial Department at the Board of Trade.

7466. Would it be at all like the Commercial Intelligence Branch?—No. It is not the Commercial Intelligence Branch; that is a separate division altogether.

7467. Anyhow, the Foreign Office consult the Minister of Commerce?—Yes.

7468. Who would consult specially that department which you refer to, and they would determine whether this invitation should be accepted or not?—Yes.

7469. Would they send anybody out to the country in which the exhibition was to be held, or take any other steps to find out whether it was a desirable place to exhibit in—whether, for instance, if they participated, there would be likely to be a demand for French goods?—I think not; I think it is all settled in Paris.

7470. Would it be done partly on political motives and partly on commercial motives?—I should think it would be to a certain extent governed by political reasons and guided a good deal by private political motives in France—that is, by the interest taken in it by senators and deputies.

7471. When they have decided that France should take part in an exhibition, do they then settle what money they shall give?—That is settled afterwards in consultation between the various Departments specially concerned and the Ministry of Finance.

7472. Then we come, I think, to the *Commissariat-Général*, which is very much the same as a Royal Commission here, is it not?—Yes; practically it is a Royal Commission.

7473. What does that do?—The decree relating to the organisation of the French participation in the International Exhibition at St. Louis, practically shows what is done; the same form is followed for all exhibitions.

7474. In taking the decision of which we have spoken, the French Government do not consult the French Committee for Exhibitions Abroad, do they?—That comes later.

7475. When the Foreign Office and the Ministry of Commerce have determined to take part in an exhibition, I gather that they appoint a *Commissariat-Général*, and then, I suppose, leave the matter to them?—As far as the Ministers are concerned, the matter is handed over entirely to the *Commissariat-Général*.

7476. Will you please go on with your statement?—The next question I was asked is, Who exercises entire supervision—whether it is the Minister of Commerce, and, if so, whether it is over details, or whether he is only responsible for the total grant? To that, M. Picard says, "The entire authority rests with the Minister of Commerce, who is charged with the control of the expenses granted in the Budget for the service of the exhibition. He leaves, however, a large initiative to the Commissioner-General, but the Minister of Commerce remains the master, and can exercise his control in the manner in which he thinks best." The whole control of the money practically remains with the Minister of Commerce.

7477. Do they not have to go to the Minister of Finance?—They have to get their vote from the Minister of Finance in the ordinary course.

7478. Who settles whether they will give £100,000 or £50,000?—That is settled by the Minister of Commerce with the Minister of Finance. In the Memorandum which I sent in, all the credits are shown which have been allowed to the various exhibitions from 1886 to 1906.

7479. Our next question was, If there has been no uniform rule, what was the general principle followed? which industries or groups of industries generally receive the largest grants? and is the distribution of the grants fixed by the *Commissariat-Général* or by the *Société Français des Expositions à l'Etranger*?—M. Picard says, "The Government, when it grants subsidies, specifies expressly the object for which they are granted. These subsidies are more particularly devoted to the expenses which interest the official representative of France, and to those of the sections which cannot expect to derive from the exhibition any material benefit, such as education, social economy, etc., as well as to a participation in the expenses of bodies of workmen or of workmen's associations." That shows that those who exhibit pay their own expenses, and that the Government money is devoted chiefly to educational exhibits, to social economic exhibits, and to the visits of workmen.

7480. Does not the Government pay for the decorations?—No; they are paid for out of the money which is contributed by the exhibitors.

7481. Then we come to the question of the constitution of the French Committee for Exhibitions Abroad; what can you tell us upon that?—"The French Committee for Exhibitions Abroad is a society recognised as of public utility, and counting more than 2,000 members."

7482. Any quite respectable society is recognised, is it not?—No; it is not a privilege which is readily given.

7483. The Society of Political Economy, of which I am an honorary member, I know is recognised?—Yes, I am aware that that is recognised as a society of public utility; but still that recognition is not an easy thing to get.

7484. It does not necessarily mean getting a Government grant if it is recognised, does it?—No.

7485. Does it in this case? Does this society get a Government grant?—No; there is no Government grant given to it. Being recognised as a society of public utility does not imply a Government grant. I do not know whether you wish to hear the composition of the Committee.

7486. We know the constitution, so that I do not think you need repeat those details. How will it proceed with its work?—When an exhibition is decided on, the French Society for Exhibitions Abroad acts as the go-between between the exhibitor and the exhibition. The Government has nothing to do with the exhibitors, and it is this society which gets the subscriptions and collects the exhibitors and the exhibits.

7487. Would they invite people to exhibit?—That is exactly what they do—they do invite people to exhibit. "One of the principal factors in the recruiting of the society is the *rôle* which its members play in the committees for the admission of exhibitors and the installation of the exhibits, and also the part which they take in the formation of the juries and the support which they are able to give, if necessary, in the distribution of prizes after the exhibition is closed." There is a point which plays a very important part in French exhibitions, and which does not exist in this country, namely, the decoration of exhibitors with the Legion of Honour in return for the services they render in exhibiting. The number of members of the Legion of Honour is limited, but when an exhibition is over, the Government go to Parliament and ask specially for permission to increase the number.

7488. Is that a permanent increase, or does it end as those people die out?—It is only an increase *ad hoc.*

7489. You consider that that is an important factor?—Yes; the chance of a decoration is no doubt a great inducement to exhibit.

7490. We have heard something like that before, but I am glad to get it straight from you?—I think that it is an important factor.

7491. (*Mr. Algernon Law.*) They also give other honours, such as the Order of the Dragon of Annam, or something of that sort, do they not?—Yes. They also give the decorations of the *Mérite agricole* and the *Instruction publique.*

7492. (*Chairman.*) It is this society which invites the exhibitors?—Yes. M. Picard says, "The French Committee for Exhibitions Abroad recruits the exhibitors by sending circulars which come from the Commissariat, and by personal action on the part of its members. In order to exhibit, it is not necessary to belong to the society, but the members of the Committee of Admission, and of the Committee of Installation are exclusively selected from among the members of the French Committee."

7493. They could not go outside?—Nobody outside the French Committee for Exhibitions Abroad can be a member either of the Committee of Admission or of the Committee of Installation, so it gives them a very important position. M. Picard proceeds "Hitherto the recruiting of the exhibitors has not met, in general, with any great difficulties." As to whether the cost of the pavilion at each exhibition was paid by the Government, I have no information. M. Picard says "I do not know the total amount expended by the French Committee on their pavilions."

7494. Have you any rough sort of idea of what it was?—No, I have not.

7495. We wanted to know, because at recent exhibitions the cost of our pavilions has been so very high, and the amount of money got for them at the end has been so very low?—I fancy it is the same with the French; I think they have spent a large amount of money in that direction.

7496. You cannot remember the cost at St. Louis, can you?—No. I have no information.

7497. Has the French Committee received pecuniary aid from Chambers of Commerce, etc., or merely assistance in organising exhibits?—I believe that the financial assistance of the Chambers of Commerce may be considered as *nil*, or as very unimportant.

7498. Our next question was: "Are exhibits ever refused by the organising committee on the ground of their inferiority, or for similar reasons?"—M. Picard says "Applications for admission can be perfectly well refused, either because the exhibits have no real interest, or because those who ask for admission were persons not worthy of favour, or because the space available is too small. Practically, this eventuality does not often occur, because most of the applications are the result of invitations given by the Committee."

7499. They do not have any sort of preliminary competition, then? Three years before the last Paris Exhibition the Germans were at work, when I was in Berlin, in a sort of competition; you will remember that, I dare say?—Yes. There is nothing of that kind to my knowledge in France.

7500. So they do not often refuse exhibitors?—No, because, as they say, they apply to the exhibitors to fill up the space.

7501. Are French exhibits generally collective exhibits; and which is considered to be preferable—collective or individual exhibits?—M. Picard says: "The exhibits are partly individual in character and partly collective in character. Of these two kinds, the second—that is, the collective character—is more applicable to exhibits which, taken separately, would not be of sufficient importance, such as the works of schools, agricultural produce, etc. The grouping of these various exhibits is made by categories of establishment, and according to districts."

7502. They would be local collective exhibits, then?—Yes.

7503. Now I think we can pass on to the transport arrangements?—Your question is, Were special tariffs granted; if so, what was the rate of reduction, and on whom did the cost of transport finally fall—on the Government or on the exhibitors? M. Picard says: "Reduced tariffs are ordinarily granted for the transport of the objects exhibited. The reduction is in most cases 25 pe rcent. on the dispatch of the goods, and 75 per cent. on their return."

7504. (*Mr. Wilson Fox.*) May I ask whether those reduced tariffs relate to an exhibition in France, or whether they are given when the goods are sent to exhibitions in foreign countries?—This reply refers to foreign exhibitions, but only, of course, to the goods as they pass through France, these being the specially

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favourable tariffs which are given by the French railways.

7505. (*Chairman.*) It does not refer to the rates on the foreign railways?—No.

7506. Of course, it could not, unless the French Government paid the difference?—That is so. M. Picard proceeds: "In principle, the cost of transport rests with exhibitors."

7507. The next question is, Was the cost of insurance and of storing the cases borne by the Government or by the exhibitors, and was the cost of the installation borne by the Government or by the exhibitors?—The reply is: "The charge for the insurance of exhibits and the storing of cases falls on the exhibitors, but the Government can, as has been done on previous occasions, give subventions for the purpose."

7508. Was any special staff provided by the committee to act as the representatives of exhibitors who were unable to have their own agents in attendance, and were goods sold or orders taken by the staff of the committee on behalf of exhibitors, and, if so, what arrangements were made with exhibitors in regard to this matter?—"The important houses have generally each a representative on the spot. For the others, apart from the action of the French Committee, there is no special representation, or only a collective representation." At Liège there was one representative for 30 or 40 different houses, representing not the same class, but all kinds of goods.

7509. That was by their own arrangement, was it?—Yes. What generally are the rules with regard to repacking, and by whom was the cost borne? "The cost of repacking falls on the exhibitors or on their delegates." In reference to the cost of transport, installation, insurance, etc., as to whether any part of it is ever paid out of the Government grant, and, if not, in what way is the Government grant expended? M. Picard says: "The French producers are, as a rule, tolerably favourable to taking part in foreign exhibitions. They find they are a means of publicity and an opportunity for making commercial friendships. All attach value to the awards which are given, and which bear witness to the merit of their products. The eventuality of honorary distinction does not leave them insensible."

7510. That would be rather in answer to the question that comes after. The question that I thought you were dealing with was about the charges being paid by the authorities. They are not paid by the authorities, I suppose?—No; they are not.

7511. Is no contribution ever made by the Government towards them?—No.

7512. Then how is the Government grant expended?—The Government grant is expended on what is their equivalent to our Royal Commission, and on paying the expenses of the officials who go out to represent the Government.

7513. (*Sir Isidore Spielmann.*) The cost of their pavilion would come out of the Government grant, I suppose?—I do not know whether it would come out of the Government grant.

7514. (*Chairman.*) According to the printed memorandum the Government grant at St. Louis was only about £20,000?—It was £23,000.

7515. That is not very much?—They sent out a large staff there, and they entertained very largely.

7516. (*Mr. Wilson Fox.*) Do they spend a great deal on entertainments?—I believe that the French Representatives are very hospitable.

7517. (*Chairman.*) So far as the decoration, the space, the repacking, and the rest of it are concerned, according to your statement they rather pay for it by decorating the exhibitors?—Possibly.

7518. That completes the special questions we asked you, I think?—Yes.

7519. Have you any criticisms to offer on the British section in the Paris Exhibition of 1900?—I do not think that the exhibitors were satisfied with the results.

7520. Speaking generally on the question of the management of the British section at international exhibitions, have you any criticism to offer?—No; except that I think it would be well if one of the chief officials were a person conversant with manufactures and trade.

7521. (*Mr. Wilson Fox.*) You were telling us about the society in France which invites people to exhibit and practically takes the leading part in arranging for the French participation; is that society composed of such representative men that it is trusted by the French commercial world in general?—Yes, I think so. I have their last report here, and I have looked through it, and, as far as I know, all the firms represented on it are of a high character.

7522. (*Chairman.*) Are you meaning now leading firms in Paris?—Not only in Paris, but all over France.

7523. (*Mr. Wilson Fox.*) If such a society was promoted in England, unless it was really representative, it might be worse than useless, might it not?—Yes. I think the French Committee is certainly representative.

7524. In England, supposing exhibitions were promoted by London manufacturers and London traders, there might be great jealousy in Manchester and Liverpool, and so on, might there not?—To be successful it must be general. I mean to say it cannot be confined to London any more than the French Committee is confined to Paris.

7525. The whole success of such a society would depend upon its being thoroughly representative of the commercial world, would it not?—Yes.

7526. I understood you to say that the exhibitors themselves pay for the decoration of the courts?—Yes.

7527. Do they contribute towards a general scheme of decoration; I mean, is the decoration uniform throughout the French section, and does each exhibitor contribute his share?—That I cannot tell you. I believe that the whole of the money contributed by their subscribers is managed by the society itself.

7528. I suppose the French Committee undertakes the decorations and the individual exhibitors contribute their share?—That is what I understand.

7529. One of the criticisms that have been made against British exhibits is the want of uniformity in decoration; in fact, the entire lack of any attempt at uniformity?—That is avoided in France, because the Committee make one *ensemble*.

7530. I understand that when the money is granted by the Government it is kept under the control of the Government?—It is entirely under the Ministry of Commerce.

7531. You know that in England when the money is granted by the Government it is entirely under the control of a Royal Commission, or of the body that gets up the exhibition?—Yes. In France there is nothing quite like a Royal Commission, because the Commissioner-General is always a functionary of the Ministry of Commerce.

7532. (*Chairman.*) Is he not an outside person of high standing?—He may be, but for that purpose he is a functionary of the Minister of Commerce. You will see in the decree forming the Commission for the St. Louis Exhibition they say, "the duties of the *Commissariat-Général* are quite compatible with public functions."

7533. (*Mr. Wilson Fox.*) In France they appear rather happily to combine commercial representation with a certain amount of Government supervision?—Yes.

7534. And the two work very well together?—They appear to do so.

7535. A question has been raised a good many times before this Committee about the indifferent locality which has been allotted to British exhibits in foreign countries. How is it that the French manage to get so much more space and a better locality for their exhibits than the British Government get?—They are more active.

7536. At the beginning?—Yes, I think so.

7537. Do you happen to know whether it is because they apply for more space, or because they apply for their space early and as soon as the exhibition is suggested?—That I cannot tell you. In 1900 there were complaints about our Commission not applying in time.

7538. Is it the French Committee for Exhibitions abroad that looks after that sort of thing, or the Government?—It is the Committee, not the Government.

7539. They would take the initiative about securing space?—Yes.

7540. We have no one here to do that sort of thing for us?—No, we have not.

7541. Perhaps that is the reason. Do the French Government, apart from the manufacturers, send exhibits themselves, say of minerals or of art or of chemicals—of all that class of exhibits which are much more of a national character and which individual manufacturers would not send?—To my knowledge what they chiefly send are things connected with education and social economy. There are very large exhibits always of things connected with education and with certain forms of statistics. In every French Exhibition I have seen large exhibits of the Government, but I have not seen any as regards Art.

7542. Who gets up the Art exhibit?—There is always a special section for that, and that is always very keenly followed in France.

7543. Do the Government contribute towards the Art exhibit?—Not to my knowledge.

7544. (*Mr. Algernon Law.*) I suppose they always send exhibits of Sèvres china?—Not to my knowledge.

7545. Have you ever heard of any complaints being made with regard to the action of the French Committee in refusing exhibits?—No.

7546. With regard to the reduction of railway rates, of which you have told us, does that apply over the French private railways as well as over the State railways?—Certainly.

7547. The Government have the power to obtain that reduction?—Yes. The State railways are a comparatively small part of the railway system of France.

7548. Were you at the Exhibition of 1889 in Paris?—Yes, but I had no official position in connection with it.

7549. How did our section in the Exhibition of 1889 compare with that of 1900? Was it as good a section?—I should say that it compared favourably with that of 1900.

7550. Though it was, as you know, purely a private effort organised by the Lord Mayor?—Yes. I certainly think, having regard to the money spent, that it did compare favourably.

7551. Do you know of any reason why that was so?—I think there was more enthusiasm about the exhibition of 1889 than there was about the exhibition of 1900.

7552. Was that because the exhibition of 1900 came too soon after 1889?—Possibly.

7553. If you think that there is not the same means in England of forming a good national representation of our industries as there is in France, what conclusion do you arrive at? Do you think that we should stand out of exhibitions altogether?—I think that would be very difficult.

7554. On commercial grounds or on political grounds?—If it were known that we stood out of exhibitions permanently, I think it would be injurious to our interest. I do not think it ought to be impossible to form in England a committee of officials and commercial men who would practically exercise a control and see that the goods which were sent were properly representative of English manufactures.

7555. Do you think from your knowledge of British commercial men that you could induce those whom it did not directly benefit to take part in it?—I think so. I think there would be sufficient patriotism.

7556. Even where the cost is very high, as, for instance, in the exhibiting of locomotives?—That would be rather different. I understood you to be asking with regard to the formation of a committee to make a selection.

7557. No; I am asking whether you think you could induce the manufacturers to come forward and offer their goods for selection?—I should have thought you could have got manufacturers in England who would be willing to do it, if they were approached by the Government; but of course I am not very well qualified to give an opinion on that.

7558. (*Chairman.*) Have you been round the Chambers of Commerce in England much lately? I suppose not; but I know you used to go round to them a great deal?—Unfortunately, I have not been able to do so recently.

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7559. (*Mr. Harris.*) Would you mind explaining what is meant by persons not being "worthy of the favour" of exhibiting, which is rather a peculiar phrase?—The exact words are *soit par indignité des postulants.* That means, if the applicants are not up to the mark.

7560. You cannot carry it beyond that?—No.

7561. Do you not think it sounds a little as if it meant a short way with objects of trade jealousy, etc.?—No; I think it means, if their products are not supposed to do sufficient credit to French industry and French manufacture; at any rate, that is the meaning I attach to it. This does not often happen, because the committee has generally applied to these persons to send exhibits, and naturally they only apply to those who they are sure will send worthy exhibits.

7562. (*Chairman.*) They select the people to whom they apply in the first place?—Yes.

7563. (*Mr. Malcolm Ramsay.*) Do the French Government receive from their *diplomats* abroad details as to forthcoming exhibitions which the French Government is invited to attend?—I should think there is no doubt about that. They are very well informed in all these matters.

7564. I think that the invitations which we receive—Mr. Law will correct me if I am wrong—are mostly bald circulars issued by the committee which is organising the exhibition, and that we get very little information as to the character or size of an exhibition at the outset?—It depends. As you know, exhibitions are multiplying every day, and some of them are nothing more than bazaars. I can only speak as regards the Embassy in Paris; I think we let the Foreign Office know at once what the character of an exhibition is. Very often the application does not come through the Embassy, but comes direct here, and then is referred to us in Paris for our information. You can take as an instance the Bordeaux Exhibition, which is going on now. That is purely a local exhibition, for which the British Government has granted, I think, a small sum—only £150.

7565. (*Mr. Algernon Law.*) That is to the Consul for his extra work, I think?—Yes.

7566. (*Mr. Malcolm Ramsay.*) Could you tell us exactly how the account of the Government grant for French exhibitions is settled?—I was told at the Ministry of Commerce that it was settled between the Ministry of Commerce and the Ministry of Finance.

7567. Do they consult the French Committee, for instance?—I think not.

7568. Then they have rather to fix the amount of the grant in reference to the status which they think the exhibition will have, and its probable size; that is, they have to go rather on conjectural premises?—Yes.

7569. At what stage is that settled? Is it settled immediately after the Government decides to participate?—I think so.

7570. Do you happen to know how the French Committee originated? Was it due to a spontaneous combination of manufacturers?—I cannot do better than refer you to their report, which gives the whole history of the French Committee for exhibitions abroad.

7571-72. We have that book already, thank you, so that we can refer to it and verify that point for ourselves. When was the French Committee started?—In 1895.

7573. (*Chairman.*) Perhaps you recollect—was it due to Government action, or did the manufacturers combine spontaneously?—I think that the initiative was largely owing to a well known Paris manufacturer, M. Gustave Sandoz.

7574. Then it was due really to private initiative?—The report says that in 1885 a special committee had prepared for the participation of France in the exhibition at Barcelona in 1887. That was the origin of the Committee. In 1895 it was reconstructed on a fresh basis under the name of the French Committee for Exhibitions Abroad.

7575. (*Mr. Malcolm Ramsay.*) Do you happen to know whether under the present system in France they have ever any difficulty in getting a sufficient number of representative exhibitors to come forward?—I do not think they have. As far as I know, the number of

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French representatives at the last international exhibition (St. Louis) was very large.

7576. (*Sir Isidore Spielmann.*) Do you consider that the trade results to the French exhibitors are of great consequence to them; in other words, do they derive great benefit by exhibiting?—I should say not.

7577. If they do not and if the Government has to give decorations to induce them to exhibit, to whose advantage are these exhibitions?—For political and private reasons there is no doubt advantage in taking part in the exhibitions.

7578. As a matter of fact, then, the French manufacturer is not more interested in international exhibitions than the English manufacturer?—No, I do not think he is. I should say he derives very little advantage from it, from an industrial point of view.

7579. As we have no decorations to give our British manufacturers, we cannot be surprised at their not being eager to exhibit, can we?—No.

7580. With reference to the management of the French Art Section at exhibitions, that is altogether distinct from M. Dupont's Committee, is it not?—Yes.

7581. And quite distinct from the Ministry of Commerce?—Yes; it comes under the *Ministère des Beaux Arts.*

7582. And they would get their grant independently under the Ministry of Fine Art, would they not?—Yes.

7583. In reference to Milan, did not M. Dupont on that occasion endeavour to organise the Art Section as well, and was it not stated that he made rather a fiasco of it?—I do not know.

7584. With reference to the Paris Exhibition of 1900, you have referred to the British section as not being very satisfactory, but would you not exempt from that criticism the Royal Pavilion as an exhibit and the Art Section?—I think the most satisfactory part of our exhibition was the Art Section. Of course, there were a certain number who thought too much money was spent on the Art pavilion; but whether that was the case or not, I do not know.

7585. You have referred to collective exhibits, and I think you said that in France they are generally agricultural and educational?—Yes.

7586. Can you tell us anything about textiles? Do not the French invariably include them in collective exhibits?—I think they are included. I was speaking more with reference to the Government grant, and I do not think textiles are specified.

7587. (*Chairman.*) I suppose that the silks among the textiles are a great attraction always at their exhibitions?—The textiles, as far as my experience goes, have always formed the backbone of an exhibition.

7588. And I suppose the textiles from France would be more attractive than they would be even from this country? They would be more attractive than the Manchester prints or the Bradford woollens, would they not?—Perhaps they would.

7589. (*Sir Isidore Spielmann.*) Can you give us any figures of the amounts contributed by the most important firms who are members of the French Committee?—No.

7590. They bear the expense of exhibiting, and they bear a part of the expense of decorating the section. Does their report state what the firms contribute?—No.

7591. Do you happen to know whether it falls heavily on the firms?—I will enquire whether any figures are procurable.

7592. (*Chairman.*) We should be very much obliged if you would kindly take a note of that point?—I will ask him, and let you know.

7593. (*Sir Isidore Spielmann.*) In addition to the report which they issue, do they issue a balance-sheet?—I have never seen one.

7594. I think it would be interesting to this Committee to know how they spend their money?—There is no balance sheet of any kind in the Report issued by the Committee.

7595. (*Chairman.*) We should be very much obliged if you could procure the balance sheet of M. Dupont's Committee for us?—I will try to do so.

7596. (*Sir Isidore Spielmann.*) If we could know how they spend their money, it would be useful to us?—Their receipts must be very considerable.

7597. (*Chairman.*) According to the memorandum which you sent in, the cost of the St. Louis Exhibition was only £23,000, and that seems a very small contribution from the French Government unless it was assisted by a further contribution from the French Committee?—I think the expenses of the official representation were only paid out of it.

7598. (*Mr. Algernon Law.*) Do you think the table in your memorandum is a complete statement of the amounts voted? Does anything come out of the *Beaux Arts* or other sources?—Only for the Art Exhibition.

7599. (*Mr. Wilson Fox.*) Our manufacturers here, when they send to an exhibition, pay their own expenses and the cost of sending their exhibits to the exhibition. I should rather like to find out whether in France the manufacturers not only pay for the cost of their own exhibits, but contribute something over and above that which in this country the British Government pay for. If they contribute anything towards the general funds of the exhibition besides paying for their own exhibit, then the French manufacturers are paying for something which the British Government pay for here. I should really like to get to the bottom of that?—I will try and find that out for you.

7600. (*Mr. Waring.*) Are there any particular points in the organisation of the French system of control which you think might be advantageously employed in any future rearrangement in England?—I think the idea of the French Committee for Exhibitions Abroad is not a bad one.

7601. Possibly a difficulty here, as compared with France, is that in France there is more *esprit de corps.* There is a greater artistic sense in the French race, and I should think you would get a response from a Frenchman which you would not get from an Englishman; there is not the hard-headedness about the Frenchman that you find in the Englishman, and so he can be captured, as you say, by decorations—in point of fact, there is a better artistic sense amongst the the people?—I think the French are far more ready than the English to follow the government lead. In France, if the *mot d'ordre* went round that the Government wishes the manufacturers to take part in an exhibition, the manufacturers would take part in it.

7602. The French people act under orders, and are under the control of the Government to a much greater degree than we are here?—Yes.

7603. Do you think that the money employed in the Royal Commission buildings might not have been more advantageously employed in dealing with the courts, in the Paris Exhibition of 1900?—Do you mean whether the money spent on the buildings might not have been more advantageously spent inside?

7604. Yes?—The art building on the Seine was a great attraction—in fact, I suppose it is the thing which will be most remembered in connection with the English exhibit. But it cost a good deal of money.

7605. What were your impressions as to the practical value of that to the nation? Was there not a general sense of disappointment about our exhibit, and a certain feeling that it was a failure?—It is very difficult in dealing with art to say what the practical value is. There is no doubt it gave the French an opportunity of seeing some fine pictures by British artists, but whether that was of any value to English art or not is doubtful.

7606. Was it your opinion that in that section it was a success, but that generally as regards the court itself—and I mean by the court the inside part of our section—there was a sense of its having been a failure?—I think that was the general impression of the exhibition, and it is what I have always understood. Certainly, it was the impression of the English commercial classes in Paris that the English court was a failure.

7607. (*Chairman.*) I do not think we have asked you anything about Belgium. Belgium used to be in your sphere, did it not?—Yes, and it is nominally still.

7608. Can you tell us anything about the last exhibition at Brussels in 1897?—No, I know nothing about it.

7609. We have got certain written information, but I thought if you had had any personal experience of the Belgian management then, we should be glad to hear it?—I had not; I did not even go there.

7610. Is Switzerland in your district?—Yes, it is.

7611. Should you say that the Swiss are very active in taking part in foreign exhibitions?—My impression is that they are not—in fact, I think the Swiss are decidedly against exhibitions.

7612. Can you remember when there was a big exhibition in Germany? Judging from that, the Swiss might still be desirous of taking part in foreign exhibitions without having them in their own country?—Yes, that is true.

7613. (*Sir Isidore Spielmann.*) Did you see the Paris Exhibition of 1878?—Yes, I did see it; but I do not remember much about it. I was only over there for a few days; I was not in Paris then, and merely went over as a visitor.

7614. Then perhaps you do not remember what sort of show Great Britain made?—I think the exhibits were very well shown, if I remember aright. Each country had a cutting—a block. It was very well arranged, I think, far better than the exhibition of 1889 or the exhibition of 1900.

7615. Really, neither in 1889 nor in 1900 did we make a good show?—That is the general opinion.

7616. (*Mr. Waring.*) You hold strong views on the necessity of Great Britain being represented at international exhibitions, I think?—I think she should be.

7617. You feel that strongly?—I do.

7618. We could not afford to be out of it?—It is one of those things that it is necessary to do. If other nations take part in them, I do not think we should stand aside.

7619. (*Sir Isidore Spielmann.*) What would be the result if England refused to participate in another exhibition in Paris?—I do not think that at the present moment it would be possible for us to refuse if there were another large exhibition in Paris. It may interest the Committee to know that the question of another exhibition has already been on the *tapis*. *Sir H. A. Lee*, K.C.M.G., C.B. 20 June 1907.

7620. (*Chairman.*) We should rather like to hear about that?—They say the question is being studied now. I know the question has been brought forward, but I was told that no decision had been come to. The other exhibitions have been at intervals of eleven years, but it is very doubtful whether there would be an exhibition as early as 1911.

7621. (*Sir Isidore Spielmann.*) From your point of view you would rather see this country hold aloof altogether than make a poor show, I suppose?—I think so. I think if we take part it ought to be properly done. I have no doubt whatever about that.

7622 (*Chairman.*) I think you told us that you think we ought not to abstain?—We ought not to abstain, and I do not see how we can abstain.

7623. (*Mr. Harris.*) I think you said that at present you consider it would be impossible to abstain?—I was talking then with regard to France.

7624. (*Mr. Waring.*) It would be an insult, in point of fact?—If we were invited by the French Government to take part in an exhibition now, I think that we could not decline such an invitation.

7625. (*Chairman.*) I suppose the French are taking a great interest in the exhibition next year at Shepherd's Bush?—Not much has been heard about it in Paris, but it is rather early as yet.

7626. (*Sir Isidore Spielmann.*) That again would be a matter for M. Dupont's Society?—Yes.

Mr. William Kelway called; and Examined.

7627. (*Chairman.*) You are a member of the firm of Messrs. Kelway and Sons, are you not?—Yes.

7628. What is your particular business, nurserymen and seedsmen?—Yes.

7629. Where?—Langport, Somersetshire.

7630. How long have you been in business?—Since I was 12 years of age—over half a century.

7631. I see that you have exhibited in Paris?—Yes.

7632. Was that in 1900?—We have exhibited there two or three times, I think.

7633. Then you exhibited at Chicago in 1893?—Yes.

7634. And at St. Louis in 1904?—Yes.

7635. Then you exhibited at an Italian Exhibition. Where was that?—I really cannot tell you where Varese is. We did not exhibit there personally. They asked us for some seeds and plants, and things of that sort, so we sent them over.

7636. (*Mr. Algernon Law.*) You are not thinking of the Milan Exhibition?—No.

7637. (*Chairman.*) You are sure it was not the Milan Exhibition?—Yes.

7638. You have exhibited dahlias, gladioli, delphiniums, pyrethrums, gaillardias, and other plants?—Those are our specialities.

7639. And the value of the exhibits sent to each place you say is about £500?—Yes.

7640. You think you have had an increase of business in foreign countries which you can attribute to the exhibition of your specialties?—Yes. We depended upon exhibitions of that sort entirely for many years, but for the last few years we have been advertising a good deal.

7641. Are they new varieties that you exhibit; is that the way you get them on the market?—Yes; that is our point.

7642. Then you say that you have never experienced any disadvantage in having your goods copied; I suppose they could not be copied very well?—No, they cannot. They are quite unique. They are originations, and nobody can have them until we put them into commerce.

7643. Do you get your varieties mostly by cross-fertilisation by seed?—It is cross-fertilisation by my own hands principally, from seed. *Mr W. Kelway.*

7644. You have got awards, I gather, at these exhibitions?—I think we have had two or three hundred medals altogether, but I cannot tell you.

7645. Anyhow, you can tell us that you have had more than 100 medals?—Yes, I know that.

7646. These medals are advertisements to show the world where to send for real novelties, I suppose?—Exactly. We use copies of the medals for advertisements.

7647. Have you got a large trade in foreign countries?—Yes; that is a large part of our trade. We send to all parts of the civilised world.

7648. Have you been induced to buy sometimes from British or foreign exhibitors through having seen their exhibits at an exhibition?—We have not done much of that sort, our own productions being originations. We do not buy anything, unless we see anything that we think is worthy of being put into our stock.

7649. Would you say that you have derived benefit and instruction sometimes from visiting exhibitions?—Certainly. We always see something new—new ideas are exhibited.

7650. Apart from your own direct benefit, I understand that you are very much in favour of this country being properly represented at foreign international exhibitions?—Certainly. As far as we are concerned we should like to continue it.

7651. You have not much to tell us about the organisation, have you; or can you give us any hints for the better organisation of exhibitions?—I know nothing at all about it.

7652. In what form do you exhibit your goods; are they all "a-growin' and a-blowin'," as they say?—Yes.

7653. I suppose you have a nice floral display?—Yes. When the exhibition is near at hand we cut the blooms, stand them out in the water, and send them to the exhibition.

7654. Would you send them as far as Paris?—Yes, in jars of water. We have to keep the boxes level.

Mr. W. Kelway. 20 June 1907.

7655. What did you do at St. Louis?—There we sent the seeds and the plants, and grew them there, and cut them there. They had an establishment at Chicago; we sent them the seeds and bulbs previously, and they showed them themselves.

7656. Do you have a special stand?—Certainly.

7657. I suppose you do not do any part of the general decoration with your beautiful flowers?—No, but we have so many square feet allotted to us always.

7658. And you have a bright display in that space?—Yes, as good as anybody in the world can show of those things which are our specialties.

7659. Have you many competitors from this country?—There are some, but there are very few who show cut flowers abroad. They mostly send cases of seeds and models of roots and plants, but very few people show the living thing from this country in another foreign country.

7660. Have you a market in the United States for your goods?—Yes.

7661. I forget whether they are charged a high duty; I think they are?—I think so, too; I think it is about 40 or 50 per cent.

7662. But, still, I suppose you only sell to the richer Americans, who do not mind so much what they pay?—Of course, we do not mind so long as we get the money. It is certainly big orders as a rule that we get from America—very big orders.

7663. Would they be from private people?—Principally, but we supply the trade as well. There are very good firms in the trade in New York, Chicago, Boston, Philadelphia, and other large places, whom we supply.

7664. How are the awards granted to you? Does the jury come round?—Yes. During an international exhibition I think they come round about every fortnight; and, if possible, our exhibits are sent over afresh every fortnight, as a rule. It is a great undertaking, you know, to go across the Channel with cut flowers, but that is what we did at Paris. I do not know that that is to be quite recommended. Of course, the principal thing is to pay attention to your boxes—to send somebody to keep their eye on them, and to see that they are not upset, because if they are upset your exhibits are all spoilt.

7665. (*Mr. Wilson Fox.*) You send over these cut flowers frequently during the exhibition, do you?—We did at Paris, in just the same way as we would send them up to London, only they take a day longer before they are shown.

7666. At the St. Louis Exhibition did you plant any portion of the English garden around the pavilion?—Not for the purpose of decoration, but for the purpose of cutting flowers to show in the building. I do not know that they did not plant round about the decorative grounds; they were had for that purpose, I know.

7667. Exhibiting at these international exhibitions brings you orders, I think you say?—Certainly. In our early trade we depended entirely on exhibitions, until we were in a position to issue a catalogue like our present one. And now, of course, exhibitions help us, and we do not give up exhibiting; although we advertise, we still keep on exhibiting.

7668. With reference to the constitution of the jury, have you been always satisfied that the interests of this country were fairly represented?—I think so. I think they give us fair play. I have been a juryman myself, and I know.

7669. At which exhibition was that?—Not abroad; but I have been a juryman in exhibitions here, at the Royal Horticultural Society and the Royal Botanic Society.

7670. How many do they muster there?—At the Royal Horticultural Society the muster, I think, was about 35.

7671. Do you think a jury of that size can give the individual attention which is necessary?—Yes. It is done by voting.

7672. (*Mr. Harris.*) Do you remember the names of any other seedsmen or florists who exhibited at Paris or at St. Louis, side by side with you?—I do not know that I do quite. I think nearly all the cut flowers at Paris were shown by French people; I think we were the exception with regard to cut flowers.

7673. You were the only English firm then that did it?—I would not say that quite. All the firms—Carter's and Sutton's, and several others—did exhibit there; but I do not remember that they have exhibited cut flowers at any important exhibition.

7674. Do you mean to tell me that your cut flowers were sent on that occasion to the Paris Exhibition?—Yes.

7675. (*Chairman.*) Your flowers, I suppose, are forced mostly, being grown with heat under glass?—No. Our specialties are all grown in the open air.

7676. You would not have gladioli in spring, except they were forced?—I only show gladioli when they are in perfection in the open air here.

7677. So you would not show them until the late summer?—No.

7678. (*Mr. Harris.*) When the exhibition opened in May did you make any show?—There was a house of calceolarias in June, I remember; but I was not there in May. Of course, you cannot alter the seasons for the various flowers, unless they are retarded and kept in a dormant state. For instance, if you want the lily of the valley grown in September, instead of allowing them to come at their natural time in the spring, you would retard the dry roots, and then bring them into growth in August, and get them in perfection in September. But we never do that; we never retard anything at all.

7679. (*Chairman.*) You do all at the natural time?—Yes.

7680. (*Mr. Harris.*) Can you give us any notion of the cost to you of exhibiting? You have told us that the value of your exhibit each time was £500; but do you remember what it cost you to exhibit, say, at Paris or at St. Louis?—Do you mean for carriage, the cost of cut flowers and setting them up, all the labour and that sort of thing?

7681. Exactly?—I dare say it would cost £50 a time.

7682. Have you got any separate account of exhibition expenses, or do you run it in with your general expenses?—It would go into the general expenses, but I dare say we could turn it up and see what we paid this man and that man, and so on, for attending the exhibition, and what we paid for carriage and freight.

7683. Speaking generally, did you spend a good deal of money out of pocket on it?—Yes.

7684. And you found that on the whole it paid?—Certainly it paid.

7685. In your own mind, how do you compare the effect of your exhibiting at Paris, we will say, with an exhibit of yours at the Temple Show?—They are a day older in Paris, and your cut blooms, of course, have to suffer a little.

7686. I mean from the point of view of the business that comes?—I think it is tantamount—it is about the same thing.

7687. Do you mean that you get as much business out of the Temple Show as you get out of showing abroad?—I dare say we should, in the same time—for the same length of an exhibition.

7688. You would not get as much foreign business out of the Temple Show?—No; we should not get as much foreign business at the Temple Show. There are very few foreigners there; but there are Colonists, and so on, that you may get hold of.

7689. Have you had business in the Colonies as the result of showing, do you know?—Yes. There were orders for the Colonies taken at the last Temple Show, I know, by our man there.

7690. You said in answer to the Chairman that there are certain things new to you at exhibitions, of which you get the advantage; what kind of new things did you mean—were they definite points on which you have derived instruction or knowledge; if so, can you indicate any such points?—I do not know that I can tell you exactly a certain thing; but you do meet people there, and they give you ideas of their own which are new to you, and you make use of them. You see their new productions, and if you think they are worth applying, you go for them; and in the same way they would buy yours. If we did not see them at an exhibition, we could not really judge; and the only thing we could do would be to buy them and to try them.

7691. You think as a florist you have got benefit out of it in the way of business?—Certainly.

7692. (*Mr. Algernon Law.*) You seem to have been quite satisfied with the management of the various exhibitions—by the various Commissions, or whatever the British organisation might be?—Yes. I have never seen need to find fault with it at all. There has always been the room and the space allotted; it is always previously arranged.

7693. You have had no difficulties with the exhibition authorities?—No.

7694. And you have not been subject to restrictions owing to the fear of your bringing in any disease with your plants, or anything of that sort?—No.

7695. Then you were not subject to the ordinary restrictions?—There were no restrictions at all.

7696. (*Mr. Wilson Fox.*) In sending your goods to a foreign exhibition do you think that you help your export trade most, or that you helped your trade in this country most, or do you think that you help both equally?—I think the fact of your getting a medal in Paris, would help to sell your things in this country quite as much as a London medal would, or perhaps more. In addition to that, of course, you get French customers and customers from all parts of the world. I think you get more foreign people in Paris than you would here in London; it opens up a trade more in all parts of the world.

7697. It opens up a trade abroad, and your getting these medals also advertises your trade here—through that book of yours, for instance?—Certainly. People are very much gratified to know that their countryman, or a man of their own neighbourhood or their own county, has got a medal in Paris. It is a material advantage.

7698. You regard showing at a foreign exhibition then as a good form of advertisement?—Certainly.

7699. May I ask whether you get direct orders from individuals at an exhibition, or do you rely chiefly on getting orders from the trade at an exhibition?—We get orders at the time at these exhibitions.

7700 From individuals, do you mean?—We have got men who stand at the stall and take what orders they can get.

7701. Do they get those orders direct from the consumer?—From the consumer, and from the trade too. If they cannot get an order, they endeavour to get addresses, and catalogues are sent.

7702. At the foreign exhibitions do you get a large number of orders from individuals and private people at times?—About the same as we would in London, I think.

7703. You would get a certain number?—Yes. You would get about the same percentage if you attended a Paris exhibition as you would in London.

7704. What percentage would that be? Would you get 75 per cent. from private individuals and 25 per cent. from the trade, or what?—I should think you would get 90 per cent. from private people and 10 per cent. perhaps from the trade.

7705. That leads me to this point, that your particular trade is a very favourable one for showing. If you can get 90 per cent. of orders from individuals, you differ very much in the character of your trade from many others, who have to look entirely for custom either to wholesale buyers or to retail buyers in the trade itself, and not to the private consumer; therefore your particular trade lends itself especially to showing at exhibitions?—That is where, as I said, we always got our trade at the beginning. Now we get our trade by advertising, and by the catalogue, because we have got more capital to work with.

7705. By showing at foreign exhibitions you can get in direct touch with the foreign consumer?—Exactly.

7707. (*Sir Isidore Spielmann.*) At St. Louis were you in any way subsidised as regards your expenses; did the Royal Commission assist you?—I do not think so.

7708. You exhibited entirely on your own account and paid all your own expenses then?—I really forget about it now; I forget whether we did have anything or not. I think the Chicago and St. Louis people paid the freight; but I could look it up.

7709. Did you send a representative over to take orders?—No; we did not send a man over to America. We had an agent there.

7710. Who was he in St. Louis, do you know?—I forget his name.

7711. (*Chairman.*) Was he an agent for the exhibition, or have you a permanent agent in the States?—I think he must have been a general agent. He did some good trade for us.

7712. (*Sir Isidore Spielmann.*) Was he an exhibitor's agent?—I think he was.

7713. Was his name Hillman or Day?—I really forget; I could not tell you now.

7714. (*Mr. Harris.*) Did you send your own man to Paris?—Yes.

7715. Did you keep someone there the whole time?—Yes.

7716. Did you keep more than one there?—We had two there the whole time.

7717. (*Sir Isidore Spielmann.*) Do you regard the award you get, if it is a good one, as being an ample return for all the trouble and expense you are put to?—Yes. The announcement that we had been awarded a medal would do just the same, even without getting the medal, because now they award a medal, and if you wish to possess it, you have to pay for it.

7718. Is the value of a medal the same as it used to be, do you consider; or has it, on account of so many being given, become less valuable in the eyes of exhibitors?—I do not think it has become less important. I think the greater the population and the bigger the exhibition, the greater the number of medals awarded.

7719. (*Chairman.*) I suppose there is an increasing demand for new varieties of plants always, is there not?—Yes; that is the life of the florist's trade.

7720. You are not at all content to go on with the same plants?—We could not pay wages with the old things. Unless you could sell delphiniums and such things at a guinea each, you could not keep up an establishment, and you could not send out a catalogue like ours; it would not pay for it.

7721. So I suppose exhibitions are very essential to you in order to show your new stock?—Yes. It gets into the papers as a new thing; and if you have a unique thing which is your own, you command the trade for it.

TWENTY-FIFTH DAY.

Thursday, 27th June 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
The Right Hon. Sir James Kitson, Bart., M.P.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Isidore Spielmann.
Mr. U. F. Wintour (*Secretary*).

Mr. Frank Bowden, called; and Examined.

Mr. F. Bowden. 27 June 1907.

7722. (*Chairman.*) You are the Managing Director of the Raleigh Cycle Company, Limited, are you not?—Yes.

7723. Where are your works?—At Nottingham.

7724. Have you been in business very long?—I founded the company at the end of 1888. I was then Chairman and Managing Director, I am still, and I have been one or the other or both all the time.

7725. That is for nearly 20 years. I believe you exhibited at the Worlds' Fair at Chicago, at the Milan Exhibition, 1894, at the Perugia Exhibition, 1899, at the Coolgardie Exhibition, 1899, and at Cape Town?—Yes.

7726. In what year was the Cape Town Exhibition?—I cannot tell you, for I do not remember what year it was. It was some three or four years ago, I think.

7727. Of those the Chicago Exhibition was much the largest?—Yes. I have also attended a number of other exhibitions as an ordinary visitor.

7728. But you have not exhibited at them?—No.

7729. You have exhibited cycles only, I think?—Yes.

7730. The value of the goods you exhibited at Chicago, which was your largest exhibit, was about £500?—Yes. Ours was about the biggest exhibit there.

7731. Have you had any increase of business with foreign countries which you can directly attribute to the exhibition of your goods, and their inspection at the places you have named?—Nothing worth speaking of, in fact, we cannot really trace anything. I have been asking some of my assistants about that. We think it may have done a little good, but, as I have said in the answers to your written questions, it never anything like paid us, especially that one at Chicago, which cost us £1,000.

7732. I understand that you have not experienced any disadvantages from exhibiting, except at Chicago, but you did get your goods copied there?—Yes; there was a good deal of that. At that time we were taking a very prominent position in cycling. In those days there was a great deal of cycle racing sport; the most famous rider in the world was riding a "Raleigh," and so were most of the others. If anyone here remembers anything about cycling at that time, he will remember Zimmerman, who created quite a furore.

7733. Did you do any business with the United States at that time?—Yes. We were doing many thousands a year. We had finishing works in New York, and we sent over all parts in the rough and finished them and completed the bicycles there.

7734. That has been rather your way, has it not, so as to get under the tariff?—Yes, to a great extent there, but never anywhere else.

7735. The tariff was very high, was it not?—Yes; and has been ever since.

7736. Do you think there is any advantage in getting the awards that are given at exhibitions?—Very little indeed to us.

7737. Have you gained many?—Yes, several. I think we had one at Cape Town, which was given to our agents there, and at Chicago we had a special award for eight of our specialities, in addition to a medal for specific merit. We also received awards and medals at all the other exhibitions at which we have exhibited, either directly or by our agents.

7738. Do you not advertise that on your business cards?—We did years ago, but now we do not consider it of any value, and we do not advertise any of them, although this year we are using small reproductions of both sides of the Chicago medal, as ornaments to the corners of our catalogue, but without any reference to them in the reading matter.

7739. Is that because people trust to their own knowledge more; or are the awards so numerous?—I do not think people value medals very much now, because they see that beer and similar articles get hundreds. Therefore people are not impressed by them as formerly.

7740. What do you consider the most valuable way of telling the public that your goods are the best?—General reputation. If there is any gentleman in this room who is a cyclist, and you were to ask him, I am quite sure he would say at once there is nothing better than the "Raleigh"—at least I fancy so; but of course it might be prejudice on my part.

7741. How do you persuade other people?—We do it; we increase our output every year.

7742. I asked how do you persuade other people that that is so?—By travellers, and advertising in many ways the specialities of our machines and using the unsolicited testimonials that are being sent to us continually by people who have ridden our machines for many years.

7743. In your heads of evidence, you say that a medal from the Touring Club of France is worth more than all those that you have been awarded at international exhibitions?—Yes. They had a mountain climbing contest, two years ago, and my son thought he would like to go over as a bit of sport and enter. He got awarded one of their medals, but he did not get a gold one because——well, there was a great fuss among the French makers, and so four of them had to get the gold medals, and there were not any more to be awarded, and we got the next one, which was a silver medal.

7744. That you consider was of value to you?—Yes, that was of great value, because we were the only foreign firm that got a medal.

7745. I think you said to me just now that you have visited a great many exhibitions; have you ever been induced to buy from British or foreign manufacturers to any extent, from having seen their goods at exhibitions?—We have bought one or two things, but that is all, I find. Really we got more from the exhibition that took place in Glasgow some few years ago, when our technical man went up to see about certain machinery that we wanted.

7746. Do you mean the Glasgow Exhibition of

1902, I think it was?—That is the one. But we have done very little in that way. As a rule, the foreigner does what we do—he sends out travellers. If he has something that suits cycle firms, he sends travellers to see all the firms in England about it. We buy a number of things from abroad, but not through exhibitions; it is done in just the same way that we push our business abroad—by travellers.

7747. But you have seen improved machinery sometimes which has been of interest and advantage to you?—Yes.

7748. You did not exhibit at Paris in 1900?—No, I think not.

7749. Nor at St. Louis in 1904?—No, certainly not at St. Louis. Sometimes our agents exhibit, and do not tell us anything about it; and in that way I believe we have been at one or two exhibitions in Paris—I think at one before the first Automobile Show, but it was not of any great importance, and we were not represented directly.

7750. I suppose the machines would be exhibited under your name, and not under the agent's name?—That is so; they would be always shown as the "Raleigh." They are always proud of that. It is the trade mark, you see, and that is the great point in connection with it.

7751. So your reason for not having exhibited at more exhibitions has not been because your agent objects to your exhibiting yourselves?—No. If there is a local exhibition, the agent is always very keen on having an exhibit by us. We have not thought lately that it paid us to go to the Stanley Show in London; we were not there last year, and I do not know whether we shall go again. Quite a number of other firms have also dropped out, although that is purely a cycle and accessories exhibition, with a few motor vehicles.

7752. So, still less would you exhibit in future at international exhibitions, I suppose you would say?—I think so.

7753. That is, you would not go to the expense. But are you in favour of international exhibitions and of British manufactures being well represented at them?—I think it would be of great benefit to many English manufacturers if they were represented at exhibitions abroad.

7754. Then you would like other people to have the trouble and expense, but you would not care to go into it yourself; is that it?—No, that is not the point. It would not pay us to exhibit cycles, but there are many things made in England, and made wonderfully cheaply, which it hardly pays to imitate abroad; and where things like that are attractive and readily saleable, I think the exhibition of them very often draws the attention of the wholesale foreign and also retail buyers, and leads to very considerable business. I should say, as example, the light steel, brass work and the fancy enamel work at Birmingham would benefit very largely by such exhibitions. There are also many others, of course, and some English goods that would benefit by exhibitions abroad are very costly, but I do not think it will pay to exhibit English cycles where there are high tariffs.

7755. Do you think that the newer firms in the cycle industry would benefit by showing?—No. They could do a great deal better by sending out travellers and showing how very cheap they can supply the stuff. The general idea abroad is, "Never mind the quality; it is the price." This does not refer to rich or well-to-do people, who buy the best wherever they are.

7756. And they put up with a poor quality for a low price?—Yes, that is the great thing. I have just come from a cycle tour in France. At Caen I saw bicycles which were made by Massey and Harris, of Canada, a firm I know well, of exactly the same style of model that was made ten years ago, with no improvements except the free wheel. They were fitted with front-tyre brakes. You could not sell such things in England, because if the front tyre of one of those machines punctured, the bicycle would then be free to run to smash, without any means of stopping it. Yet, that is the kind of stuff they sell over there, because it is exceedingly cheap.

7757. Then your reasons for not exhibiting have nothing to do with the organisation of international exhibitions by the superintending authority here?—I was not satisfied with the way that some I have seen were organised.

7758. Where?—Chicago in particular.

7759. Give us a little of your experience of the British section in Chicago?—I do not think it was very well arranged for us, and I think that the English interests were not looked after as well as, apparently, the French interests were. I did not see what I call a business man on the committee there or among those who were looking after it.

7760. Did you want any help? Did you go to the head office?—Yes. I have forgotten the details now, but I know that we did want some assistance and some direction about one thing and another, and practically gave it up as a bad job. I spent about eight or ten days there.

7761. And you were struck with the want of business men on the organisation?—Yes.

7762. Do you mean by a business man, a man who knows all about the cycle industry?—No, not at all.

7763. You mean then a man with a general business knowledge?—A man who has business knowledge. I do not know the gentlemen, except by repute; but take, say, a man like Sir James Kitson, or a man like Mr. Waring, whom you have on your Committee. I know those gentlemen by repute. Those are the kind of men that you ought to have a fair number of, not bureaucrats so much.

7764. Whom would you have at the head?—A Government official.

7765. You would have a Government official, or some big person at the head?—Yes; one who has had great experience of exhibitions.

7766. And you would have on the exhibition committee a good sprinkling, if not a majority, of business men, if you could get them?—I would have a majority of them, I think; it would be very much better; and I would especially say business men retired from business with all their faculties unimpaired, as if often the case.

7767. Do they retire?—They do not want to go in for making more money.

7768. Do those nice people retire from business with all their faculties unimpaired, when they are still making a lot of money?—I think so, and it shows they have good sense when they do it.

7769. But do you think they have that good sense?—Yes, plenty of them.

7770. Do you not think it is rather difficult to get the best men of business?—No. There is always a considerable amount of honour attached to such a position, and I am sure there are very many who would take it. Just in the same way I have very strong views as regards the British Consuls abroad, because I have been obliged to consult them.

7771. That is a slightly different point, although it is a very interesting one; but I suppose you have not run against the Consuls in connection with exhibitions, have you?—I could hardly say that.

7772. Anything in connection with exhibitions we should like to hear?—I have seen a lot in connection with exhibitions. I was at the Centennial Exhibition in 1876 in Philadelphia. I also saw, I think, the first exhibition in Tokio, and that was, I think, only some three or four years later; but it would be too difficult to hunt up the dates.

7773. We are more interested in the recent ones; for instance, the Paris Exhibitions?—I have been to two of the big Paris International Exhibitions. There was one in 1889, and there was another one in 1900; I was at both of those.

7774. Had you anything to do with the management of those; did you see anything of the management at Paris?—No.

7775. Then you cannot give us any criticism about the Paris Exhibition?—No.

7776. You can only give us your general views about what the management should be?—Yes.

7777. I gather that, generally, you are well disposed to exhibitions, but you do not think that your particular line lends itself much to that form of advertisement?—As regards exhibitions, I think it all depends where they are, and the circumstances connected with them; but it would be very much better if the Government, instead of having perhaps quite so many officials, were to spend some of the money in assisting certain of the exhibitors whose manufactures it considered

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would be of advantage to England to be represented abroad.

7778. That is, that there should be some selection of the best things to be shown?—Exactly.

7779. Something in the nature of a collective exhibit, suppose?—That is it. They could say to the people: "We propose to exhibit so many of your goods, or so much of your goods, and we will give you so much space. We will look after it for you, and distribute any matter that the Exhibitions Committee may allow to be distributed. You must pay so much for so doing, but there will be the end of your liability in the matter." If that were done, you would get a much more representative exhibit than, I think, you could get in any other way. There are certain things that can be exhibited very well abroad and with great advantage to the makers. There is one firm—I have not asked them about this, although I am intimately acquainted with them—Alfred Herbert and Co., Ltd., of Coventry, who are the finest makers of automatic tools in the world. They beat America, because they have American ingenuity in their head man at the works—Mr. Harmer—and they have British solidity. They have exhibited abroad, and I think you could get some very valuable information from them, but what description it would be I do not know. I only know this, that they are now supplying their tools in every part of the world. We want some automatic machinery from them, and cannot get it for 12 months.

7780. They are so full of orders?—Yes.

7781. As regards these collective exhibits, are you aware that Bradford, I think it was, at one or two exhibitions got up a collective exhibit? Has Nottingham ever done anything of the sort?—I do not know.

7782. Do you not belong to the Nottingham Chamber of Commerce?—No, I resigned.

7783. Do you think the Nottingham Chamber would be of help to us in getting up a collective exhibit of the industries of Nottingham?—I think they could help you.

7784. You ought to join again, ought you not?—They have asked me lately to join again; I do not know whether I will, because formerly my presence there did not seem to be of advantage to anyone, and I am very busy, being also the head of another very important organisation, the Sturmy-Archer 3-speed Gear Syndicate.

7785. (*Sir James Kitson.*) You have given your opinion to the Committee as to the type of business man you think should be on the Royal Commission; but do you not think it would be extremely difficult to induce men with great business experience and at an advanced age to take an active part on those Commissions?—They have induced you; why should they not induce others?

7786. My experience of business men on committees or commissions is that they are not very reliable, and that they do not attend?—I have never heard that they say that about you.

7787. They do not attend, and I have had some experience upon the Paris Exhibition Commissions. You are comparing, I think, the very best business men with the ordinary public servant, instead of comparing the best business men with the best type of public servant, don't you see?—You can very easily govern the matter of the business man remaining a member of the committee or the commission by making it one of the rules that members should attend so many times, etc., and if any member did not do so, and therefore did not comply with that particular rule, he would cease to be a member immediately and without notice; and then you could appoint another one to replace that person.

7788. Your suggestion is offered with the view of forming an efficient commission?—Yes.

7789. You think it should be composed of business men of experience?—Yes, partly of business men and partly of officials.

7790. But I say that you cannot get the business men?—Have you tried?

7791. Yes; and they will not give the time?—It depends upon how much time you want.

7792. The commissions that you have rather complained of in regard to the exhibitions you have mentioned have been perhaps supplied from an inferior grade of public servant, and therefore your comparison, I suggest, is scarcely a fair one?—Several that I met had not what I call a common sense knowledge of the way things should be attended to

7793. I ask you these questions, not so much because they arise out of your remarks, but because there have been several suggestions put before this Committee to the effect that there should be business men on the commission. The organisers of these international exhibitions and the Government administration are always ready to put the best business men on to these commissions, only they cannot get them to give their services?—One question, of course, would be how much time would be required. That is a great thing. Surely there should be no difficulty in getting a number of men to take up a position like that, if it is stated clearly how much time is required. Plenty of good business men are trying to get into Parliament, and to be J.P.'s, and all that sort of thing; why should they not do something in that way, especially if good and useful work be rewarded with honours in the same way that political work is.

7794. You have graduated, and therefore we can accept you as a first-class man of business; but you told the Committee yourself that you have so much to do—that you have this business to manage and that business to manage—that you cannot join the Chamber of Commerce?—No, not that—that I cannot do any valuable work there, in my opinion.

7795. I suppose the same difficulty arises with these commissions?—I do not know; I do not think it follows.

7796. (*Sir Isidore Spielmann.*) I think the last great international exhibition in which you participated was the Chicago one, which was held in 1893, I believe; the others which came after being small?—We have had Milan.

7797. We do not call that a great exhibition; it does not rank with the large exhibitions?—We have been represented at two exhibitions over there, and at one in Turin.

7798. But those were not big exhibitions?—No, they are not big enough to be called that.

7799. Your last great one was in 1893, that is 14 years ago?—Yes.

7800. As you have had no experience of great international exhibitions since then, do you not think your evidence is a little severe? Have you visited the later great exhibitions?—Yes.

7801. Have you seen what other firms in your trade have exhibited there?—Yes; and it has been a mere nothing.

7802. But if I am not mistaken, some firms in your line have spoken rather favourably of exhibiting at exhibitions?—I cannot answer that one way or the other, as I do not know that they have; but I know that there has been practically no exhibiting at any of these big ones.

7803. You speak of the troubles which you had at the Chicago Exhibition; what were they exactly?—We could not get the exhibit arranged in satisfactory form. We were shoved up in a very bad place, and we could not get any attention. There seemed to be nobody there to attend to things, and I wasted hours trying to get hold of the officials, and to get information about different matters. We had people there before my arrival trying to get things right.

7804. Were you dissatisfied with your space?—No, it was not the space; it was the place in which we were put, and the difficulties in connection with it altogether. The real details of the particular troubles, which were very large indeed, and which our own representatives on the spot were unable to overcome, I cannot give you now; it is so long ago.

7805. Do you remember who was in charge. What was the name of the British official who had charge of your section?—I do not remember any of them.

7806. I believe the chairman of the Royal Commission was Lord Alverstone—Sir Richard Webster he was then?—I do not remember.

7807. He was thought to be a good organiser. You cannot account for the difficulties that you have experienced?—No; except that I could not find out that there were what I call any practical business men on the job.

7808. Why did you drop out of the Stanley Show.

You said you exhibited formerly at the Stanley Show, but you have since declined to exhibit?—A number of firms are finding that there is no special benefit now in exhibiting cycles. The public are not attracted, because the changes yearly are few, and not noticeable by the general public, to whom all cycles seem alike, besides the novelty has gone, but very great interest is taken in automobiles. We are not the only ones who have dropped out from the Stanley. Messrs. Rudge-Whitworth, Singer & Co., Centaur Cycle Company, and Swift Cycle Company are among those who did not exhibit last year.

7809. Then you think that confidence, even in the smaller trade exhibitions at home, is subsiding, just as confidence and enthusiasm in the larger international exhibitions is subsiding?—It all depends upon what the exhibition is. Take, for instance, the Healtheries and others, that were held down at South Kensington. They were all immensely interesting, and drew people tremendously, at the time they were started. Whether they paid or not I do not know, but they drew people then much better than they would now. From our point of view, as regards our particular business, certainly it does not draw in the same way as before; but on the other hand, as I say, it does draw in the motor business. The Exhibition of Automobiles is about the most attractive exhibition possible now; and I am sure the coming one will be a greater success than any that has been held before.

7810. Do you say that you would require a very strong inducement to exhibit at a future international exhibition?—Yes.

7811. And you say that you have dropped out of the chief exhibition in your line in this country?—Yes, because it is unattractive here.

7812. Consequently you would not exhibit in a big exhibition?—I do not say that. For instance, if there were an exhibition somewhere abroad, and the Government were prepared to take it in hand on the lines which I suggested just now, we should consider the matter on its merits, and see whether it was not worth while to exhibit there. I think there has been an exhibition in Tokio within the last two or three years. It was rather a large one. Our agents in and for Japan applied to us for certain allowances to enable them to exhibit, and got a little direct business; but I know other firms who make cheap bicycles who have done twenty times the amount of business in Japan without exhibiting—why?—because of the low price of their goods.

7813. Have you derived any benefit from any one of these exhibitions that you have participated in?—It is impossible for me to say positively yes or no. We cannot trace anything directly to it. If you advertise in a certain paper, it is impossible to say whether you get any particular benefit from advertising in that particular paper; but you do get a benefit from advertising all round, most assuredly—it is the life of trade.

7814. In which European capital would you be disposed to exhibit if there were an exhibition?—Amsterdam.

7815. On account of there being no duty?—There is a 5 per cent. duty there, but it is a low duty, and we can compete with anybody there in good machines, of which the Dutch buy largely.

7816. Is it chiefly the duty that keeps you out?—Yes. Of course, you understand that in those countries where they have large duties they can keep us out, and therefore it is very little use sending over there to exhibit, because every time it is a question of price. At my last visit to France, although I was cycling for pleasure, I met some of their biggest agents and talked with them. They said, "We know your mark very well indeed; but the cost for freight and duty is 60 francs apiece to lay down the bicycles here, and people will not pay the price."

7817. (*Chairman.*) You have got your agents there, have you not?—We do a mere nothing in France now.

7818. But you have an agent there?—Yes, we have an agent in Paris.

7819. And in other European countries?—Yes.

7820. Have you one in Italy?—Yes. In Italy we do perhaps something over a thousand pounds a year, and a few years ago, before they put up the tariff, we were doing £12,000 a year. Our business has decreased in every country where they have a big tariff.

7821. (*Sir Isidore Spielmann.*) In the event of your being offered financial assistance towards the cost of exhibiting, would that be a consideration with you?—Yes, in the way I suggested just now; that is, if you say, "There is to be an international exhibition at a certain place, we will give you a certain space at a certain price and look after the exhibit for you on your paying so much"—then we might do it. We should in certain cases.

7822. (*Mr. Malcolm Ramsay.*) So far as your own business is concerned you look upon exhibitions as a means of advertisement, I suppose?—Yes. The greatest inducement to exhibit at the Stanley Show is the fact—mind you, we have lost that, you may say, by coming away from it—that if we exhibit at the Stanley Show we get notices in the newspapers all over the country; but we do not consider the expense of showing, which runs into a matter of £300 or more, pays us for those free advertisements in the dead season.

7823. Do you think that other firms in the cycle trade take the same view of it?—Yes; they are gradually doing so.

7824. I think you mentioned Singer's?—The Singer Company have done the same thing.

7825. Then there are the Humber bicycles?—The Humber people are still exhibiting there, but the Rudge-Whitworth people are not.

7826. Do you think you can afford to stand aside and take your chance of people saying, "The Raleighs are no longer exhibiting; they have gone off"?—There is no doubt we can afford to do it, because everybody knows we do not think it worth while to exhibit there as we have our own depôt on Holborn Viaduct.

7827. If you have got a novelty, would you not gain by exhibiting it. Take your 3-speed gear, for instance?—Yes, and we are exhibiting that.

7828. Does it not pay you to exhibit that?—Yes. The Three-Speed Gear Syndicate is a separate concern, and have been exhibiting their gears for years, and will be at the Stanley Show again this year, most assuredly. Exhibitions are the most valuable of all advertisements for novelties.

7829. A novelty is a thing that may be helped by an exhibition more than an established article may be?—Yes.

7830. May I ask if your total sales are increasing, or are they keeping pretty steady?—They are greater now than ever.

7831. You mentioned just now that your foreign business has fallen off a great deal?—Are you referring to our turnover altogether?

7832. Yes?—Our turnover altogether now is greater than ever, and in the Sturmey-Archer Syndicate it increases about three times each year over the last.

7833. Then you are making up on the home trade what you have lost on the foreign trade?—Yes; and it pays us better to cultivate that trade, because when we have got it we can hold it; whereas abroad we are too much in the hands of our agents there. [I should explain that an "agent" in the cycle trade is simply a wholesale customer, to whom is granted the sole right of sale of a certain mark of cycle (as the "Raleigh") in a certain country, town, or district.]

7834. Supposing there were an exhibition abroad in which the British Government were going to participate, and they wished to get a representative collection of various industries, and the country was one in which you did not expect any particular business, and supposing the Government came to you and said: "We are anxious for the credit of the country that we should have some of our first-class cycles shown"; would you consent to go into that exhibition from patriotic motives?—We sometimes spend a sum of money for that sort of thing, just in the same way as we spend money in providing things for our workpeople that we have no necessity to provide. Very likely we might, if it would only cost a moderate amount.

7835. You would be prepared to consider it if the cost was not very large?—Yes.

7836. (*Mr. Harris.*) What made you go to Milan in spite of your general disbelief in exhibitions?—As a matter of fact, our agent in Italy went to Milan.

7837. You exhibited through him?—Yes. We paid

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half of the expense, I think, and he paid the other half.

7838. Did you send a large exhibit?—Yes, we sent a thoroughly representative one. He said it would help him with the Italian sub-agents, and would make a lot of talk. There, again, you come to it as an advertisement; that is all it was—especially with the sub-agents, not with the private buyer, you see; and yet the agents, of course, know all about our mark. After all, it is an advertisement pure and simple.

7839. Can you say as yet whether it has paid you?—No, because business has gone down steadily in Italy.

7840. You have not picked it up just lately; you have had no spurt?—We have not been able to say. In most foreign countries now they are not really what we call cyclists; they only mess about on their bicycles, and do not ride them long distances. The consequence is they go in for the very cheapest kind of stuff, and the dealers will tell you candidly, "Look here, I do not care anything about quality; I want a bicycle for a hundred francs"—whether it stands up afterwards or not, I do not care. A firm in Paris candidly said to me as regards a market in South America: "We will buy 2,000 bicycles from you if we can get them at the price"; and they added, "We don't care if they go to pieces in a fortnight; we have nothing to do with that."

7841. Did you exhibit at New Zealand last year?—I believe our agent did exhibit there.

7842. (*Chairman.*) Then the list of exhibitions which you gave us at first is not quite complete, if your goods were exhibited at New Zealand last year?—You see we cannot give you exact particulars. All we know is that we have as our general agents in New Zealand the Adams Star Company; they have our sole agency there, and we cannot sell to anyone else, and it is their business to advertise and do everything in connection with our cycles. We supply them at rock-bottom prices, and they do the rest in New Zealand. I remember that Mr. Adams told me when he was over last time that they had been exhibiting at the exhibition there, or were going to do so, and as a matter of fact, the bicycles were shown; but it did not interest us.

7843. (*Mr. Harris.*) Do you send a good many bicycles to New Zealand?—We send a fair number; I do not know what you would call a good many.

7844. You have a trade that pays you more or less there?—Yes.

7845. You told the Committee that you were a visitor to the last two exhibitions at Paris; were there large exhibits in bicycles and tricycles there?—I really cannot remember seeing them there; I was more interested in other things. I did not go with the idea of seeing such things.

7846. We should like to know what impression those exhibitions made upon you generally. We will confine ourselves to the Paris Exhibition of 1900; what sort of impression did the British show make upon you?—My remembrance is that it was a very good one, but then I was attracted by art, not manufactures.

7847. I am asking you about manufacturers?—I did not go there to inspect them, having no time to spare.

7848. I think the general effect of your evidence may be put down as that an exhibition of bicycles and tricycles at the present time does not draw?—That is so.

7849. It is past the time when exhibiting them has an effect, is that it?—Yes, at all events in this country and in France.

7850. I am speaking of abroad now?—Abroad I do not think it draws much. But it is a sort of thing that England may well be proud of, because there is nothing connected with the cycle trade of any importance that has not been invented in England. I do not know that any of you can mention a single thing. There is only one thing that is used here now that was not invented in England, and that is the wood rim. They still use a lot of wood rims on racing bicycles, but not on others; I introduced the wood rim into England from America.

7851. In saying that, do you mean to suggest that in an exhibition of British industry you would like to see a large representative collective exhibit of cycles?—No, but I would like to see a small representative exhibit, because there is nothing in the world that can equal the English bicycle in its completeness. We are far ahead of France in the matter of variable gears, the latest great improvement in cycles. Take, for instance, the cycling tour I have had lately, which has done me a world of good; I could not have stood it if I had not had a variable gear for riding over hilly roads against the awful winds of the last three weeks; but with a good variable gear one does not mind them. They have variable gears in France, but not the kind we use in England. There are many kinds of variable gears, and the French use what they call a retro-pedalage, a thing by which you pedal backwards—a very ridiculous thing in English expert opinion. It is heavy and cumbersome, and it is not mechanically correct; but the French use it. If they were to send an exhibit of their cycles to England so fitted, they would be received with derision; but if we were to send bicycles from each of the big firms in England and exhibit them in France, the exhibit would draw a lot of favourable attention.

7852. When you talk like that do you still mean that this would not pay as a matter of business, but would simply be a sort of national pride; is that your view?—Yes, that is what I mean.

7853. You do not think that if you were to push it business might result from it, do you?—It is possible that it might result, especially if the Government did it. If the Government were to make a little collection of cycles, no bigger than this room, and set them out nicely, I believe it would have twenty times the effect resulting from the firms exhibiting by themselves. This would be the idea: Let there be an exhibit of British bicycles, and say, "That is a Rudge-Whitworth, that is a Humber, that is a Singer, that is a Centaur, that is something else," and on each one you could have some of the specialities of the firm, and you could state what they were. That would attract a great deal of attention.

7854. You would put up the names of the firms, then?—You are bound to put the names on and show them, because foreigners go by the trade marks very greatly in bicycles, and they would not otherwise recognise them. But it should be a representative exhibit of the principal firms in the trade, showing specialities particularly; and then I think it would have an excellent effect, because the British cycle industry is something to be proud of. In connection with that I may mention that some of us who are not making motor-cars—and my firm is not doing it, we have got our hands full with other things—are proud of the fact that the leading men in the motor trade are ex-cycle men, and that the two great races that have been run lately have been won by cycle firms, not by motor men, who think they know everything, and who do not.

7855. There is only one more question I will trouble you with arising out of your evidence. How did you first push the Raleigh?—By advertising in the English papers and by interviewing cycle agents.

7856. Simply by that means—no exhibition came in?—No, foreign exhibitions, but we exhibited every year at the English cycle exhibitions down to 1905. I was a Director of the National Cycle Show from its start till its last exhibition at the Crystal Palace, a period of about 12 years.

7857. (*Mr. Algernon Law.*) In order to test the activity of the three last organisations we had for Paris, St. Louis, and Milan, were you asked to send an exhibit to any one of those three?—To all of them.

7858. You were?—I remember distinctly St. Louis coming in.

7859. By letter or by post?—I do not know. I can remember the St. Louis application coming in by letter, but whether anyone came round as well I forget. I have an indistinct remembrance that someone did call about one of them, and it was probably about St. Louis.

7860. Would it have more effect in inducing you to exhibit if it was explained to you?—No, because everything, whether our secretary or one of the other directors sees it, finally comes before me, and I deal with everything as carefully as a man can. I do not put anything into the wastepaper basket without looking at it. I always find time enough for that.

7861. I suppose your agents in a foreign country would know more about the pushing of your cycles in that particular country than you would yourself?—Certainly.

7862. Then in the case of where your agent has exhibited, or has requested you to exhibit, it may be

assumed that in that case, and probably in similar cases, your business does gain by exhibiting?—As it has gone down very largely abroad, taking it generally, and with most of the other firms it is just the same, you see we cannot say that it has benefited us very much—and even the agent would not say that.

7863. But your agents think it worth while to exhibit?—They have not thought it worth very much. Take, for instance, Cape Town; they exhibited there, and the agents have been complaining ever since.

7864. (*Chairman.*) But there have been bad times out there I think, have there not?—Yes, and it is getting worse and worse apparently.

7865. That may have had something to do with it?—I have a very large experience of the different places myself, because I have been seven times round the world. I have lived in China and France and the United States, and I have visited all the Australian Colonies, New Zealand and Tasmania. So I know the ground pretty well. I have also been in most European countries.

7866. (*Mr. Algernon Law.*) Would you feel inclined to modify a statement which you make at the end of your proof with regard to employing practical men—I suppose you mean in subordinate positions—and "Not the well-connected ignoramuses whom the writer has met, who were evidently appointed simply to provide them with well-paid employment." I think you have referred chiefly to Chicago; in that case the person who had the chief management, and apparently had largely the responsibility of selecting these people, would have been the present Lord Chief Justice, then Sir Richard Webster. Do you suppose he selected people in order to provide them with well-paid employment, and not on their merits?—Lord Alverstone is one of our best clients. He is honest and straightforward and thorough in everything, but, notwithstanding his high position, I do not think that he was the best possible judge of the men to select for such a business as that.

7867. But he would not select them in order to give them highly-paid employment?—No.

7868. So you would modify that?—No. The people would be put before him, and he would be solicited by one and the other, etc.

7869. I suppose it is difficult to pick up good men for a six months' or a year's job?—Yes, but as regards some men who have retired from business, I am sure that you could get good ones to assist in a matter like that, and you could put them on the committee.

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7870. On the committee, but not as being paid as subordinates?—No, I do not mean that, because they would not have it.

7871. (*Chairman.*) Have you any suggestions as regards the paid subordinates? How would you be most likely to get efficient men? The best men, as you were rather indicating just now, would probably be in employment?—I have had no practical experience of the working of an exhibition, and therefore I do not think I am in a position to advise from experience on that matter. But if I had to engage the subordinates I should advertise for them, stating the duties required. Some of our best men and men holding high positions have been obtained by us in that way, and Government appointments, whether for long or short periods, have a great attraction for able people in all countries.

7872. I take it that you want to have a good figurehead, a man of some position, as the head of the commission?—Certainly; that is very important.

7873. And as many good business men as you can get?—Yes.

7874. Do you think you can get a good many?—Yes. Whenever it is abroad, most assuredly I think it is of the greatest importance that the head of affairs shall have a considerable knowledge of the language of that country.

7875. You mean the men at the head of affairs?—Yes.

7876. (*Sir Isidore Spielmann.*) In the event of a Royal Commission inviting half a dozen or twelve firms to contribute a dozen cycles apiece towards a collective exhibit, do you think there would be any difficulty in getting such a collective exhibit together?—You will not want as many as twelve in order to get a representative exhibit. Really, if you had three you would get all the varieties necessary.

7877. Would they be willing to do it, do you think?—Do you mean to supply the cycles?

7878. To lend the cycles to a Royal Commission, leaving to the Royal Commission the installation of the exhibit?—I am sure they would.

7879. Would you?—Yes, we would lend a representative exhibit with great pleasure.

TWENTY-SIXTH DAY.

Thursday, 18th July 1907.

PRESENT:

Sir Alfred E. Bateman, K.C.M.G. (*Chairman*).
Mr. A. Wilson Fox, C.B.
Mr. C. A. Harris, C.B., C.M.G.
Mr. Algernon Law.
Mr. Malcolm Ramsay, C.B.
Sir Swire Smith.
Sir Isidore Spielmann.
Mr. S. J. Waring.

Mr. U. F. Wintour (*Secretary*).

Captain Percy H. Atkin, called; and Examined.

7880. (*Chairman.*) You have had some experience in connection with international exhibitions, I think?—I was British representative for Education and Social Economy at St. Louis, 1904, and I was British Commissioner for the New Zealand Exhibition, 1906-7.

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7881. You were out there, I suppose, all the time?—I was out in St. Louis all the time the exhibition was open. I was in New Zealand the whole time, from about three weeks before the exhibition opened to about the same period after the close.

7882. What opinion have you formed as to the effect of exhibitions, say, on the manufacturing and exporting trades of this country?—I am afraid that on that particular point I have no data on which to form an opinion; but in regard to art, art undoubtedly benefited at the last exhibition.

7883. You mean in New Zealand?—Yes. I can speak quite definitely about that, from the fact that we sold £17,000 worth of pictures.

7884. Have you formed any opinion as to the effect

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of exhibitions on the general commercial relations between the countries concerned?—That is a point I cannot speak on in regard to New Zealand, because what trade exhibits were there, were not under me. There were some British trade exhibits, but they were under Mr. Day, the exhibitors' representative.

7885. The general commercial relations between the countries concerned would be, in this case, between New Zealand and the mother country; I suppose you did not form any particular views as to that?—I had no opportunity of doing so.

7886. Then I will not examine you on that. You seem to be in favour of collective trade exhibits?—I am in favour of collective trade exhibits, on the ground that from what I can gather from the St. Louis report, it was very difficult to induce traders to come into the exhibition. Therefore, it seemed to me that collective exhibits would be the first scheme which one might elaborate in order to try and get some representation better than we have succeeded in doing before.

7887. Do you think that if you saved the costs of the exhibitor, you would get more exhibits?—If trade exhibits were collected by personal conference, and if offers were made to take the goods from the factory, convey and insure them, give them free space, and then return the exhibits to the owners, or sell them, it is hard to believe that it would be entirely a failure. The makers would bear the cost of production and of packing up the object ready for conveyance, but the State should pay the rest, in my opinion, if the British Section is to succeed.

7888. Would you let the State decide what is worth exhibiting, or not?—Of course, the great difficulty of a collective exhibit is what you may take and what you may leave; but when the State is going to pay the cost, that does give a greater freedom of choice than if the exhibitor pays anything.

7889. At the New Zealand Exhibition, did you think much of the trade exhibit from this country? There was not very much there, was there?—There was not very much, but what was there, was very nicely set out, and it was attractive. For instance, Boosey's instruments, Sutton's seeds, and Price's candles had booths; then there was a very fine exhibit by Hardy of Alnwick of fishing rods, which was a very suitable exhibit for New Zealand.

7890. But it did not at all represent the industries of this country?—No, certainly not.

7891. As regards St. Louis, you were there all the time, so you must have seen a good deal of the exhibits; were you satisfied with the British exhibit?—With the manufacturers' exhibit—no; it was poor.

7892. Was the chemical exhibit good?—The chemical exhibit was very fine. That was on a different plane altogether; that was collective.

7893. I suppose it was partly on that account that you are in favour of collective trade exhibits?—Yes. I felt that that had been done by people who understood how to collect a collective exhibit, and that they had done it extremely well.

7894. You say in your heads of evidence that exhibitions should be run with clearly understood ideas and not on chance; could you explain that to me a little?—I am not at all sure that the organisers of British sections have always had a clear idea before them of the object they had in view; and I think that it is hardly reasonable to expect it, when you ask a gentleman to manage an exhibition who has probably never had any chance of knowing anything about such matters. There, I come upon the question of organisation, which I was proposing to deal with later.

7895. Very well. Then you say the first efforts should be concentrated upon the propagation of trade, but that art, economy, and education should have full prominence?—Yes. I think that the original object of exhibitions was for the benefit of trade, and I do not think that it should be lost sight of in any way. I think that is the real reason for an exhibition. But the other subjects of art, economy, and education, which have been such great successes in our recent exhibitions should certainly find a place of considerable prominence.

7896. You would not make them less, but you would make the other more?—That is what I would do certainly; that is exactly the way.

7897. You say we shall always have exhibitions, so that we should treat them as serious propositions, and be ready to deal with such proposals with energy and interest?—That is so.

7898. I suppose there again you are leading up to your proposal for a more continuous policy?—That is the gist of everything I have to say. I think it is difficult to conceive that Great Britain can abstain from participation in international exhibitions. She cannot hold aloof; she cannot be the only Power to stand out from them. She must play her part, even though our chance ways of doing so are somewhat inapplicable to the serious business involved. Whether it be beneficial or not to the trade of this country, it is unthinkable that we can ever point-blank refuse to participate. Such a refusal could not fail to have an exceedingly bad effect on our international relations, and might even be regarded as an affront to the inviting Government. There is a feeling that manufacturers do not get full advantage from exhibitions. I hope that further investigation may prove that they do get an advantage; but a point which one cannot disregard is, that participation is as much to be desired on the ground of international comity as for any known trade advantages whether they may eventually accrue or not.

7899. I suppose you would be ready to agree that there ought not to be very frequent exhibitions?—Yes. I quite agree with that.

7900. Once in five years or so, would you say?—In different parts of the world they are probably going on almost every year. For instance, this year you have an exhibition of some prominence at Jamestown in America, and you have just closed the New Zealand Exhibition; then you are getting ready for the Franco-British Exhibition.

7901. But that is not being supported by public money here?—I do not know anything about the arrangements for it.

7902. You do not think that the British Government should take an active part and spend a lot of money on exhibitions every year, or several times in the year, do you?—I would rather have some fixed amount which is applicable to exhibitions promoted under State auspices, and really experiment and see how that goes.

7903. You would have an annual sum in the Budget for exhibitions, would you?—I almost think a good way would be to have an annual sum, and not have it surrendered at the end of the financial year, so that it really would accumulate a fund for exhibitions.

7904. What did you spend in New Zealand?—Up to the present day I have spent about £3,000.

7905. (*Mr. Wilson Fox.*) That is only the amount spent out there, is it not?—That is the amount which I was responsible for spending, and which is, as you say, the cost out there of running the exhibition.

7906. (*Chairman.*) Including the home expenses?—No; it does not include the cost of the office here. It only includes what I am responsible for.

7907. Of course, that is a small sum compared with the expenditure at most of the exhibitions?—Yes, it is; and I know that the total will be less than the sum which was voted.

7908. As regards a part of the usual cost of exhibitions, you say that you think the pavilions, as at present erected, are a waste of money?—Yes. My feeling is that the pavilion is erected on an unduly substantial scale. It is used for the office of the Commission for about six months, and then it is no good to the Government or anybody else. We had a very good instance of that in St. Louis, where the pavilion cost considerably over £30,000, and at the end—of course, you know this—the Government got £200 for it, which, to my mind, was monstrous from every point of view. We ought to have got the credit of making a gift, and had the advantage of having made a gift, to the university, rather than have had this £200 to bring into our accounts.

7909. What was the exact use of that pavilion? It was used for banquets, I suppose?—It was the office of the Commissioner-General and his staff. It had also a very fine series of rooms—about five rooms—four of them well furnished by, I think, Messrs. Waring or Messrs. Trollope, but I am not quite sure about that. They furnished the rooms very beautifully as their own exhibit. The big room was used for receptions and parties, of which there were some

half dozen in the whole time. That was the only use made of the building.

7910. Could there have been some sort of sham pavilion which would have cost much less, and still would have exhibited that furniture and made some sort of a show?—I think undoubtedly there might have been a much cheaper building to show the furniture.

7911. Do you think that entertaining is necessary?—I do not see how you can have a representation in any foreign place, or even in a colony, without a reasonable amount of entertainment. I am speaking with full knowledge there of my experience in New Zealand, because I found it was absolutely impossible for me to be there without entertaining. I, of course, did not give big parties, as I had no money to do it; but what I did give were small dinner parties, and I found that they were very successful. The people and the press of the Colony thoroughly appreciated my efforts, whatever they were, in that direction. It was not an expensive entertainment.

7912. Did you not spend any part of this £3,000 in those entertainments?—There was no head for entertainments allowed for New Zealand.

7913. But at St. Louis surely, and in those other places you have been acquainted with, there have been large sums spent out of the Government allowance for entertainments?—I believe at St. Louis about £2,000 or £3,000 was expected to be spent and about £1,400 was actually spent.

7914. Partly because everyone else does it, I suppose?—That is one reason. I must say I have a great belief in mixing people together. There is nothing like social intercourse for bringing them together and making friendships—you never know how beneficial they may be—and this is best done by having entertainments of some kind.

7915. You think that transient Commissioners-General—that is, somebody appointed who is new to the office—will be more prodigal—I suppose in these entertainments or in other ways?—No, I mean prodigal right through, and not in entertainments only. For the actual management and organisation of an exhibition as a business department it is unreasonable to expect that it should be otherwise.

7916. Now we come to what you call the handicap that Great Britain is under. First, you say it has had no permanent organisation to deal with the subject, hence delay, bad sites, etc.?—I think you will find probably that there has been a general complaint about our always starting late because we have no organisation. We have neither a department nor an individual who can deal with these things; the other leading countries, like Japan, Germany and France, come in first, because they have organisations of more permanence than we have.

7917. Then you say that when the organisation is set up, it can have no strength in its work because of its immaturity; does that mean that the people that you get on your establishment have not had experience of exhibitions before?—It is a new thing; it is just set up; therefore it cannot in its very nature have any strength.

7918. Are there not a certain number who have had experience? For instance, at St. Louis there were several people, Mr. Lloyd, and so on, who had been employed at exhibitions before?—They had been employed, but I would not exactly call them experts; I would regard them as clerks pure and simple. I never saw or heard anything from any one who had been engaged in that capacity at an exhibition which gave me the impression of their being directing heads. I think there is nothing in the accounts to give one the impression that there is any economy or continuity of administration or progress in organisation in consequence of these temporary appointments.

7919. There have been a certain number of people who have been appointed at exhibition after exhibition. Anyhow, you think that the organisation might be improved, and that you might have a better plan?—I do think so.

7920. Then you say that "the exhibition should be a living reality and should be explained and discussed on the spot with vigour and enthusiasm; the attendants' daily dusting is not enough." Does that mean that you must have experts to show the exhibits?—I would not quite say experts, but you want men who are interested, and who understand the exhibit, to draw the attention of the public to it. There, again, I may refer to my own personal experience in the matter. At New Zealand I found that people wanted the exhibits explained to them, and I used to give lectures there nearly every day, and I trained my staff to give explanatory lectures upon the different sides of the exhibition. The result of it was that we attracted every day numbers of schools who used to come in classes, having fixed a day or two beforehand when they were to come, and they were taken round very much as if it was a museum. That made it a living reality to the New Zealander who had never seen these things. That is what I had in my mind when I said it is not sufficient to set up your exhibit and walk away.

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7921. (*Mr. Wilson Fox.*) This is New Zealand you are now speaking of?—Yes, and it was the same with St. Louis; I was constantly taking the people round my small exhibit there.

7922. (*Chairman.*) The wise exhibitor would usually have some attendant of his own who would explain his machinery, or whatever it was he was exhibiting; would he not do that for his own sake?—It would be rather expensive for everyone to send out someone with each exhibit. The exhibitor would have to do that through an exhibitor's agent of the type of Mr. Day, of whom I was speaking.

7923. Then you say there is no economy in starving the exhibition in order to show a surplus in the vote. I suppose you allude to a certain sum being granted, and not being all spent?—That is so. You generally find in the report of an exhibition that there is a strong point made—I am speaking of the last two reports I have read—about the great saving, and this is rather held out as showing and as proving what a great success the administration of the exhibition must have been, because so many thousand pounds has been saved.

7924. That is due to the Commissioner. Whatever the Treasury have done, it is not their fault at all, is it?—No.

7925. They have not told the Commissioner that he is to pay so much back?—No; and I do not suggest that. That observation is no reflection on the Treasury. But the great aim in running an exhibition seems to be to have a surplus.

7926. I suppose they must not have a deficit?—That is quite right. I think that what the surplus shows is not any wonderful skill in administration, which has led to the saving of £20,000 or £30,000, but a very unbusinesslike and irresponsible way of fixing the estimate. I think what we ought to try to get at is some way of fixing an estimate which more closely approximates to what is to be the expenditure.

7927. You think it is now fixed in a very unbusinesslike way?—I think it is fixed haphazard. The first thing said is: "What did the last cost?" "The last cost £125,000." "It is more expensive to live in America; we will give £150,000 here." That is the slapdash way in which it is put down. I do not think it is calculated how much space we are to have or what is to be the cost of the galleries. I do not think anyone has looked into the cost of the freight, or anything of that kind. I do not think it is estimated in the way that a public department would estimate for its own expenditure for the forthcoming year. It is as easy as possible to have a surplus at the end of it. You will simply say, "We find we are spending so much, and if one wants to have a little extra in connection with his particular section he cannot have it, because we have promised not to exceed the estimate."

7928. They cannot exceed the estimate?—Then you see, the endeavour not to exceed, results in the St. Louis case in a saving of something like £20,000, I think it was. I cannot quite follow the figures for the St. Louis Exhibition, because the report says that the cost is £122,000 up to a certain date, and that date was, I think, July 31st, 1905; but I know that the St. Louis Commission was running when I left this country. I do not know how long it ran after I left, but I think it closed in March, 1907, so there must have been some expenditure between July, 1905, and March, 1907, which has not been published—probably £10,000 or more

7929. Really, what you say hinges a good deal on the efficiency of the Royal Commission, does it not, and the managers of the exhibition?—If we have got to that point about Royal Commissions, I may say that I think they are essential. I think they are

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most beneficial and desirable, especially from the international point of view. The fact that a member of the Royal House accepts the presidency, and that many people of world-wide distinction are included in the Commission, gives a prestige to the British participation which has an undoubted value, and is regarded by other States as a high compliment. In these respects the utility and value of the Royal Commission are great.

7930. I suppose you would have business men on the Commission and on the management as much as possible?—I cannot help feeling that the actual organisation and management and administration of an exhibition should be in the hands of a permanent expert officer, who would be the Secretary of all Royal Commissions to be appointed, and who would be Commissioner-General for all exhibitions. I believe we can improve our own methods of participating in international exhibitions if the situation is carefully studied. We can get valuable ideas from other countries, but we must work out our own salvation. Germany has permanent machinery for beginning to work on exhibitions directly the invitation is accepted. We have not, and it is here that the essential improvement must be made. One need not go through how the invitation is received, because I have no doubt it is within the cognisance of the Committee exactly how these things go; but it seems to me that what is wanted is a department which is strictly under the control of the Treasury, and an expert officer who should be able to deal with an invitation directly it comes, no matter to whom it is addressed. As a rule, these invitations go to the Foreign Office, but occasionally, of course, when they come from the Colonies, they go to the Colonial Office. He should be able to weigh and analyse the merits of an invitation, ascertain what the proposal really is, how it is being supported, discuss it fully, and thereupon make his recommendation to the Foreign Office, with some rough estimate of what an ordinary participation of so much extent might cost.

7931. Then you would leave out the Board of Trade altogether, because at present they give advice on these subjects?—I do not think it specially affects the Board of Trade. I think it is the Foreign Office which makes the first move. Sometimes they consult the Board of Trade; sometimes they consult the Board of Education.

7932. As regards trade, surely they would consult the Board of Trade, which is more in touch with trade than any other Department?—Certainly, I think they should be consulted; but the Board of Trade would not have the ultimate say as to whether the participation was to take place.

7933. The ultimate say must always be with the Treasury, which has got to pay the money?—I think probably the Foreign Office would say: "It is very desirable we should participate," for some reason or other; and they would communicate with the Treasury as to the necessity for participation.

7934. That would be for political reasons?—Yes, for political reasons; and I understood the St. Louis Exhibition was participated in more for political than for commercial reasons.

7935. (*Mr. Waring.*) What are your views generally with regard to exhibitions from the dual standpoint, political and commercial? You seem to attach a rather high degree of importance to its political aspect?—I am speaking within my own knowledge, and that is of St. Louis and New Zealand. Those are the only two exhibitions that I have been concerned with. With regard to St. Louis, I was more than once told that our being represented there had more to do with the political aspect than any commercial advantage which would accrue.

7936. That is what you were told; but what is your own personal view on the matter? What is your idea, for example, with regard to an international exhibition? Is it primarily of political importance, or is it the commercial aspect that you think most important?—I should like to say it was the commercial aspect.

7937. That is your own view?—You are asking for my own personal view, and I am not saying what I think is taking place, but that I should like to think that the main reason for international exhibitions is for the purposes of trade.

7938. What do you really think?—I think that they really are run largely for political reasons.

73939. They have been largely?—I believe so.

7940. (*Sir Isidore Spielmann.*) Was the New Zealand Exhibition really international?—No, not from the point of having official international representatives. It was international in so far that it had trade exhibits from other nations besides the British nation, but there were no foreign Commissioners there; there was no German Commissioner, and there was no French Commissioner.

7941. Who were the other Commissioners besides yourself?—The other Commissioners besides myself were all Colonial—*e.g.*, the Canadian, the South Australian, the Fijian, the Victorian, the West Australian, and the New South Wales Commissioners.

7942. May I ask, had you, as Commissioner, a very difficult time, or was it an agreeable time?—I think I may say that the exhibition was a pronounced success from our own point of view.

7943. When you went out there as Commissioner did you form any programme as to what you intended to do; had you any aim?—When I looked over my programme on the way out I said, "Now what we must set about doing is to put up a big sort of Imperial object-lesson." I could not do anything with trade, but we had excellent material to enable us to give really good Imperial object-lessons. I wish I had with me the newspaper reports which would tell you—they are within the cognisance of Mr. Wilson Fox—what they themselves thought of that. It was quite a success from the point of view of showing Young New Zealand more than they ever knew about the Old Country, and what we are doing at home. No previous chance in their lives had ever shown them so much.

7944. Do you consider that the relations between New Zealand and the Mother Country have been affected by our participation in that exhibition?—There is no doubt they are very much improved by our participation, but I must say that the New Zealander is a most loyal and patriotic Englishman, so that it is rather like preaching to the converted. But we did them a great deal of good, and they all saw that, and the papers fully dealt with that in their leading articles both during the Fair and when I left the country.

7945. They appreciated it?—Most fully. Perhaps I might give you a few extracts I copied out from some of the New Zealand newspapers: "Well-arranged court." "Stimulating influence of British court from the Imperial and patriotic points of view. Its high educational value to the young New Zealander." "Arranged so that every object may be carefully, intelligently, and profitably studied." "Range and completeness of the British court." "It covers an immense area of information." "It is impossible to visit the court without being impressed with the nation's progress." "Arranged the court admirably." "British court with its wealth of instruction." "British court, with its valuable and interesting exhibits, is a perfect mine of information . . . . opens a new world to many visitors." "Quality, rarity, and variety have been kept in view . . . . well-ordered collection." "Great Britain and Ireland will certainly be the favourite hunting grounds." "The display is an enthusiastic effort." I think I may say that the object I had in view I succeeded in accomplishing.

7946. Do you happen to know—apart from the Art Section, which you and I know about—whether any of the British commercial firms represented by Mr. Day did any business?—I am afraid I know nothing of that. I do not know anything about what Mr. Day did in any way. Mr. Day was quite apart from me, and I had no official connection with him. I can speak of one firm, Messrs. Smith and Son, jewellers, of the Strand. They had an exhibit there, and Mr. Smith himself told me they did very well indeed. He was in some difficulty with regard to the Customs. He came to me one night at my hotel and told me he was in a difficulty; could I help him? I had absolutely nothing to do with him, but I went to the Prime Minister and explained my position and his, and he got what he wanted—that is, he got his goods in without having to deposit a large amount of Customs dues.

7947. Did they appreciate the Education Section?—Immensely.

7948. You yourself organised the Education Section.

I think?—I did that entirely on the lines I had done at St. Louis.

7949. Will you tell us how you formed the Education Section?—I got a list of all the universities, technical colleges, secondary and other schools, and sorted them out in order to make a short list, on which I wrote personal letters to each of the authorities, suggesting to them that I should come down and see them and talk this matter over. In most cases they agreed to my going. I went round to all the schools, and most of the universities, and a great number of other authorities, and told them exactly what was wanted. When they offered something that we already had I told them that we did not want it, and in no case did any unpleasantness arise about rejections. For instance, I went to Oxford and discussed the matter with the Vice-Chancellor, I went to Rugby and discussed the matter with Dr. James, and I went to Manchester and discussed the technological part of the matter with Dr. Reynolds. They were all most interested, and I never had a single instance of anyone saying, "You will not have anything unless you take this."

7950. Were all the universities and colleges and public schools represented?—Not all, but as many as we required to illustrate types. We could not take them all.

7951. With reference to the estimates for running an exhibition, have you anything in your mind as to what the grant ought to be for a large International Exhibition?—For the last eight years I think we have voted £295,000, so that would be on an average about £37,000 a year.

7952. (*Mr. Wilson Fox.*) Is that irrespective of whether there were exhibitions or not?—I have taken the grants for specific exhibitions. The grant for Paris was £125,000; for St. Louis, £150,000; for New Zealand, £10,000; and for Milan, £10,000.

7953. (*Sir Isidore Spielmann.*) Can you tell the Committee what you think should be about the amount given to a large exhibition. If there were another one at Paris, say, do you consider that £100,000 or £150,000 is about the right sum, or should it be considerably more?—What I did at St. Louis—I am afraid I must be egotistical here——

7954. (*Chairman.*) Do not mind that; that is what you have come for?—I like to speak of what I know.

7955. We prefer that; we do not want you to speak of what you do not know?—At St. Louis the Education exhibit cost under £4,000; and in New Zealand Mr. Wilson Fox tells us the British exhibit will cost probably £8,000. Honestly, I do not know what you do with £150,000.

7956. You do not know about the other things—how much the organisation costs, and the assistance given to the different exhibitors in freight, and so on?—I have gone into the St. Louis accounts and seen that.

7957. But you have had nothing to do with it personally?—No, I have not.

7958. (*Sir Isidore Spielmann.* You expressed your opinion pretty strongly as to the pavilion, so I thought possibly you had worked out the cost?—As the Chairman put it, I have really no personal knowledge of how these things were done, but it seems to me that you could get a magnificent exhibit for £150,000. Knowing what a long way £1,000 goes, when you are spending it with care, 150 of them seems an enormous sum.

7959. On the whole you think we did well in New Zealand?—I am quite sure the country did well, and the Government did well, and the New Zealanders were absolutely delighted—there was no question about that.

7960. (*Mr. Malcolm Ramsay.*) Could you tell us, if you have not already done so, what staff you had for New Zealand? Did you keep a staff of assistants or had you occasion to employ any?—I had two young clerks and I had one packer; in addition to those there was one assistant for Art, also with a packer. They were all engaged and sent out from here.

7961. Then you had nobody else—no secretary, for instance; and you did all the general organisation yourself?—I did all that myself and kept the accounts myself.

7962. So practically you ran the whole thing single-handed, as far as the executive decisions went, with only clerical assistance?—Absolutely. The only other assistants I had there were the cleaners, the men who swept the floors and acted as guards; and they were provided by the exhibition authorities.

7963. Did you try to get trade exhibits from English manufacturers before you started?—No. I was never asked to do so. I was told by the organising authority in London that trade was specially excluded from the Government exhibit. There was some reason for it; we did not try to get trade exhibits, because we were particularly asked not to do so.

7964. Then I take it you did not make any effort to get exhibitors among British manufacturers?—No, I was told that the High Commissioner was doing that himself.

7965. Turning to the question of organisation, you hold very strongly, I think, that there should be a permanent secretary appointed who should go on from one exhibition to the other?—I do.

7966. By that, I take it, you mean that person is to be the head of the whole staff; the person who has the final decision; is that so?—Yes.

7967. What salary do you think you would have to pay in order to secure a suitable man of that kind?—You have been paying the Commissioners-General for the last six years £1,200 a year.

7968. Do you contemplate a permanent official with a salary approximating to that?—I should think you would have to give him certainly four figures; I think that seems reasonable. If you get the right man you would certainly save his salary over and over again.

7969. Do you think that a man of that kind would be permanently employed, or would he have rather spasmodic work—very busy for two years, and pretty idle for the next eighteen months?—I think that he would have his work in rushes, but I do not see that he would be really unemployed any part of his time. To organise an exhibition properly you should start early. I will give you an instance: Canada is now starting to organise for Japan in 1912—they told me that themselves. Of course that is exceptional, and it is almost too much the other way—it is five years ahead. Then when an exhibition is over it takes some little time to wind it up, if it is a large exhibition with many awards. New Zealand was a small exhibition, and I am expecting to wind it up by the end of next month, when my connexion with it will just have been running for thirteen months.

7970. Objection has been raised to the appointment of a permanent Commissioner-General or Secretary of the type you describe, on the ground that after a few years he might get slack?—That is the case if you appoint the head of any public department; you might use the same argument.

7971. In the case of an exhibition a man has nothing to gain after he has made his name over one; he has got a comfortable berth and there is nothing to keep him energetic, as there is nothing more for him to look forward to, unless his appointment is purely temporary?—I must say that I think there is something to be said for the view that it applies to all permanent appointments in the Civil Service.

7972. Do you not think it may apply more to a particular appointment, a specialised appointment of that kind?—I really do not quite see it.

7973. That man has reached an isolated position and he cannot go further in the particular office to which he is attached, so he has nothing that he can look forward to; whereas many permanent officials might hope eventually to rise to higher things?—He might be such a great man that he might get a higher public appointment if he turned out to be a very capable administrator and skilful organiser. I do not think you should say that if a man gets an appointment of this kind he is actually in a back water; I do not think, either, that he should think that he is or that anyone else should think that he is.

7974. I was putting that to you, and I want to know what your idea of it is?—I do not think that the type of man you should put there should be a man who is content to settle down there for the rest of his life. I would like to see a man who is ambitious and who wants to get something better. That will always keep him alive.

7975. The difficulty seems to me, how you are going to supply the spur of ambition in that particular place unless the holder hopes to be tempted out into the outside market?—I do not see that there is any greater

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difficulty there than there is in any other public position you put a man into. You may put a man into a great position in the public service here, and he will probably rise to something higher; on the other hand, he may be quite content and say, "I do not want more than £1,000 a year; here I am, I am not going to do any more."

7976. Do you think the qualifications which would make a successful permanent British Commissioner for exhibitions are pretty much the same as would make a successful head of a department or assistant secretary?—A good many of the requirements are the same. I think that the object and aim of the permanent man should be to be able to forecast the outline of an exhibit and the estimated cost. When the exhibit is decided upon he should be able to arrange for the management, transport, insurance, installation, and return of all exhibits. He should organise all sections of the exhibit, relying upon honorary or paid experts in such circumstances as it was felt would lead to more reputable, advantageous, and well-balanced representation. He should train up a staff of disciplined, pensionable officers, who would in time become practical officials of settled position, and who would be competent to assist both in the office and in the galleries. He should endeavour to make his section a living reality by having explanations and discussions on the subject. He should arrange for jurors where needed. He should study the question of entertainments. He should see that all useful exhibition literature was collected for the public benefit. He should wind up the exhibit; should store all the apparatus, flags, etc., specially obtained at great cost; and he should keep these flags and apparatus for decorating any subsequent exhibitions. He should be under the control of the Treasury, and would be rather in the position of an adviser to Government Departments who wanted help about exhibitions, whether it be the scheme of an exhibition, for the loan of apparatus, or for other purposes.

7977. That leads me to the next point. You contemplate that he should have a permanent staff of some sort under him, do you not?—I think he should have quite a small staff that could be augmented, and I have a suggestion whereby this staff might be augmented partly by borrowing juniors from other departments, as I did in the case of the New Zealand exhibit. It was proposed to the Treasury that two young clerks should be borrowed, and the Treasury at once agreed to it.

7978. Two War Office clerks?—No; two from the Scottish Education Office. Their places were supplied by two temporary men during their absence. The plan gives you an influence over them, and you have a real disciplined staff, full of keen interest.

7979. You were speaking about the difficulty, or the inaccuracy, of the estimates; in a large exhibition, where there is a very considerable commercial element, is it not very difficult to make any estimate at all?—It is most difficult, but I think it should be tackled.

7980. Do you think it is possible?—I do.

7981. In spite of the difficulty of getting a given number of exhibitors? Is not the real difficulty of making estimates that you first plan out your scheme on the assumption that you are going to have so many commercial exhibitors; then when you have sent out your invitations you find perhaps only 50 per cent. are accepted; six months have gone, and you have got to replace expected exhibitors who have declined; if you cannot do that, the money that you have allocated perhaps to 100 commercial exhibits can only be spent upon 50?—I would rather base my estimate on the space to be filled, because I do not propose that any voted money should be used for the preparation of trade exhibits.

7982. You were speaking about the office where the Commissioner-General would be, and I understood you to think he ought to act in a general advisory capacity in respect of all invitations?—I believe that is what we are in want of in this country.

7983. Would you tack him on to any existing office—that I did not quite gather?—I should rather think that he should be under the Treasury itself. He is useful for all the public offices, and he could be attached directly to the Treasury in the same way, you might say, that you have the Parliamentary Counsel's Office, which is an office which is available for all the Departments, though I believe it is really directly under the Treasury, and is not under the Attorney-General. That is rather what I would have.

7984. A sub-department of the Treasury, and yet possessing a very wide independence, except as regards financial control?—Only for the advice, and not for the spending.

7985. Have you ever heard it urged as an objection to participating in exhibitions, that in many cases exhibitions are promoted at the instance of hotel-keepers and railway companies?—I have never heard that, but probably the exhibitions which I have been concerned with are not such that could possibly have that said about them. That would apply more to flower and agricultural shows.

7986. I have heard it urged as a serious objection; however, you have had no experience of that?—No, none whatever.

7987. I presume you have spoken already at the beginning of your evidence about Art?—I have just mentioned that that was the only case where we had evidence that a clear benefit had accrued.

7988. By the amount of the sales?—Yes. We sold £17,000 worth of pictures in New Zealand, and we know that as an actual fact—it is not what may happen; it is what actually has happened.

7989. And that is a direct benefit to the artists?—It is a direct benefit to British artists.

7990. Do you think it has been any benefit to Art as Art?—It has been of enormous benefit to Art as Art. It has raised the standard of Art in New Zealand to a point which they had never known before. The local artists themselves have told me so.

7991. There, you are considering it from the educational point of view of the country in which the exhibition was held?—Yes.

7992. (*Mr. Algernon Law.*) What is the most important and the chief reason in your mind why we should take part in these exhibitions?—The real reason is that I do not see on what ground we can keep out of them.

7993. What are the reasons why we should not keep out of them?—I think it would be very difficult to do so. Supposing they had an exhibition in Paris, and we were officially invited. I do not see on what ground or for what reason we could say we were not coming.

7994. We did refuse in 1889?—That was rather for a special political reason—because of the object of the exhibition.

7995. If it is a great inconvenience to exhibit, and we do not care for exhibiting, and it is not a thing that we care to go into at all, why should we make a concession to a foreign Government in a matter of that sort, which is purely within our own province? Could we not ask for something in exchange—for instance, that they should reduce the duties on our goods or pay some compliment to us?—I think even if we spent £120,000 over an exhibition it is not very much for us to spend over an international courtesy, but we cannot expect them to overturn their fiscal system for that.

7996. They need not overturn their fiscal system, but they might give a reduction on a limited number of articles?—They give some concessions in the way of Customs dues on exhibits.

7997. That is because they ask you to come in, and they wish to facilitate your coming in?—There is no doubt they do it to attract you.

7998. You lay great stress on the political reasons why we should take part in exhibitions?—I do. I think that is the reason why we have gone into them. Whether we have commercial advantages or not, I thing the political reasons oblige us.

7999. What do you suppose would have happened in the United States, or with the Government of the United States, if we had refused to take part in the St. Louis Exhibition?—I really could not say.

8000. Do you think that would have produced a serious state of affairs between the countries?—I would rather not answer.

8001. Do you think the United States, if we had some scheme on hand, would make a point of coming into it?—I am sure they would.

8002. Why do you think the Foreign Office should have anything specially to do with this?—Because, as I understand it, all invitations come through the Foreign Office.

8003. They are communicated by the Foreign Office

to the various departments?—Yes. They may probably go to one or the other—I do not know where they go; but there is always a great delay.

8004. I do not think that; as soon as they are received they are sent on?—There is no delay at the Foreign Office, and I did not mean to suggest that. What I meant was that there was some delay happening in the communications to the different departments which, rightly or wrongly, are concerned. It was to avoid that I suggest you should have some central authority, so that directly you get your invitation at the Foreign Office you simply send it off at once, and say, "Now, give us a report on this. Is this a thing that we might go into? We do not say we are going in on your report, but we want to have it criticised, analysed, and examined. You give us some idea as to what it is going to cost, if eventually we think it is a good thing to go in for it."

8005. It is for the Treasury to decide, of course?—The Treasury would decide whether they are prepared to put down £20,000, or how much.

8006. You do not suggest that the Foreign Office should estimate what the various branches of the exhibition would cost?—The Foreign Office would deal with the political aspect. I think that the political question comes in so strongly in all exhibitions that when the Foreign Office decides, and says: "Under any circumstances we must go into this exhibition——"

8007. We cannot say that; we must wait for the Treasury?—The Foreign Office perhaps would not instantly decide it; but it might say in its inner chambers, "Well, we cannot let this go by."

8008. (*Mr. Wilson Fox.*) On the question of the delay after the Foreign Office communicates with the other Departments, would not the man that you suggest should be appointed have to make just as long a delay as the present Public Departments when they are invited to form an opinion?—I do not think that the present Public Departments have ever seriously organised any section of their work to deal with an invitation.

8009. No; but there are two or three points connected with the reply; first of all, whether we should go in for it at all?—That is so.

8010. And, secondly, the expense. Then there is another point which we do not lose sight of, and which it seems to me the man who is appointed cannot lose sight of; that is, whether the traders of this country are likely to show in any considerable numbers at such an exhibition?—Yes.

8011. When such a matter comes before us that is the main point to which we immediately address our attention. Before we should write to the Foreign Office, or to the Treasury, we should ascertain, perhaps roughly, whether among certain large trades of the country there is likely to be some response. So far as we are concerned it is not a question that we can answer offhand without consulting some of the commercial men of the country who are good enough to advise us about these things?—Quite so.

8012. Would not the man whom you suggest should be appointed have to make the same sort of inquiries?—He would, but would it not be just as well for him to make them rather than to leave it as part of the work of a Department which has already got plenty on its hands?

8013. I do not deal with that for the moment; I am only explaining that a great many inquiries have to be made before any Public Department, or any official, can advise the Government?—Quite so. That is no doubt what causes the delay I refer to.

8014. You think collective exhibits should be tried more; have you formed any idea in your mind of particular trades which you think would combine together to form collective exhibits more than other trades?—I am thinking of one very good collective exhibit which we had at St. Louis, and that was in ceramics. We had a very good collection there. That was organised by Mr. Cartlidge.

8015. You would agree that some trades are more suitable to show in collective exhibits than others?—Certainly.

8016. You mentioned that at New Zealand the commercial exhibit was not a representative one, and that it did not represent the commerce of this country really?—That is so; it was too small.

8017. Was that largely owing to the fact that New Zealand is such a tremendous distance off; would that be the main reason?—I do not think the distance would count for much in that respect.

8018. We have had witnesses here who have been asked whether they showed at New Zealand, and some of them have said in this room, "No, New Zealand was so far off"?—New Zealand is a long way off, and, of course, it has only about 900,000 people.

8019. Therefore there is not a very large new market there to be worked up?—On the other hand, there is a widespread desire to have British-made goods. On more than one occasion, when I have had commercial men dining with me, they have all said the same thing, namely, that they would at any time rather give 5 per cent. more for something made in Great Britain than have to get a foreign article.

8020. I was rather looking for the reason which the traders had on this side of the water for not sending exhibits to New Zealand. Was it the distance, or was it because they thought the population so small, and that they were not likely to get a large market there?—I think both because of the distance, and of the population it was not very attractive to send a large number of trade exhibits to New Zealand.

8021. (*Mr. Waring.*) Did you go to the Paris Exhibition?—No, I was out in the South African war then, and so I never saw it.

8022. Then your experience of St. Louis is your only experience of a big exhibition?—That and New Zealand.

APPENDIX I.

Extract from the Report of His Majesty's Commissioners for the Paris International Exhibition, 1900

Handed in by Sir *Isidore Spielmann*.

"In conclusion, we feel it our duty to submit to Your Majesty the following observations resulting from our experience in connection with the Exhibition.

"Taken as a whole, it cannot be said that the British industrial section presented a fair reflection of the industry of the country seen at its best. With some notable exceptions, comparatively few of the highest class of British manufacturers took part in the Exhibition. Many of them, when approached, pleaded that if they exhibited at all they would have to do so on a scale which would put them to great trouble and expense; while they had no inducement to seek to extend their connections, since their businesses are so large already that they can hardly execute their orders. The result was that some industries were represented by firms of minor importance. Their displays were often creditable, but they could not be taken as representing the best productions of the country, nor did their exhibits compare as favourably as could be desired with those of other countries. This is partly owing to the somewhat different view of exhibitions taken by Your Majesty's Government and the Governments of other countries. The latter appear to regard them as a valuable means of promoting their commercial interests. They spend large sums of money, and assist and encourage their manufacturers in such a way that they are able to select the best examples in every department of industry, and to present them in the most attractive form. We, on the other hand, have to rely exclusively on the voluntary efforts of our manufacturers, and our exhibitors have to bear the whole of the expenses which participation in an exhibition involves. We are inclined to doubt whether British industry as a whole derives any benefit from exhibitions in which British exhibitors enter at such a manifest disadvantage. Our system has remained unchanged for half a century, but the conditions are no longer the same. When exhibitions had the charm of novelty, the great manufacturers took a pride in showing their best productions to the world. There was comparatively little competition, and they had nothing to fear from the rivalry of foreign countries. Now, exhibitions have become so common that manufacturers no longer take the same interest in them, and only exhibit if they see a distinct prospect of advantage to be gained by doing so. At the same time, foreign industries have made gigantic strides, and in many branches of manufacture have become formidable rivals to our own in the markets of the world. The industrial interests of the country, as a whole, gain nothing from an exhibition unless they are represented upon equal terms with foreign industries. There is no apparent advantage in showing inferior British productions side by side with the best productions of foreign countries. Yet this is to a large extent the effect of the system which has hitherto prevailed. We are of opinion that the voluntary system can no longer be relied upon to secure an adequate representation of British industry, and that in any future international exhibition in which it may be decided to take part it will be necessary to have recourse to the principle of selection, which has been largely adopted by foreign Powers. This principle, which involves the payment of some of the expenses hitherto borne by exhibitors, would necessitate larger grants than it has been customary to give; but we think that unless some approximation can be made to the expenditure of foreign Powers, no good purpose would be served by entering into further competition with them.

"The arrangement of the British section gave occasion for comment and criticism, and in some of the groups compared unfavourably with the arrangement of foreign sections. In the latter, as a rule, the spaces were utilised to form courts of symmetrical design. Showcases of a uniform and more or less decorative character were provided, often at the public expense, and the goods were procured by selection. By this means the sections presented a harmonious appearance, and the goods, which were all of the best, were displayed in the most attractive way. In the British section, on the other hand, every exhibitor used his space in accordance with his own fancy, and showed what he pleased. He provided his own show-case, and, within the limits of his space, was free to indulge his own taste, subject only to the limitations of height and other conditions imposed by the regulations. The result was anything but happy, and the contrast between the orderly, symmetrical appearance of the foreign spaces in certain groups—notably in Group XIV.—with the undignified collection of show cases of different sizes and designs which filled the British space was little less than painful. The cause of this conspicuous defect is twofold. It arises, first, from the difference of system to which allusion has just been made; and, secondly, from the extreme unwillingness of British exhibitors to enter into any form of combination, or to submit to any restriction of their independence. As a rule, a British manufacturer will only exhibit if he can select his own goods, and display them in his own way and in his own show case. He is impatient of advice; he will not submit to dictation; he will not share a show case with others; nor will he join with others to adopt a uniform plan of arrangement. In many instances he regards his exhibit as of much more importance as an advertisement and a competition with rivals at home than as a comparison of his productions with those of other countries. For these reasons it is exceedingly difficult to organise collective exhibits. We were strongly impressed from the beginning with the advantages which such exhibits possess. They save space; they avoid the duplication of similar objects, and in the case of many industries they ensure a higher level of excellence than any single firm can hope to attain. We endeavoured to persuade exhibitors to adopt the principle, but our efforts met with so little success that we had to abandon the attempt. In the few instances in which our recommendations were accepted—notably by the Bradford and Huddersfield Chambers of Commerce, the Alkali Manufacturers' Association, the Redditch manufacturers of needles and fish hooks, and others—the result amply justified our expectations; but, with few exceptions, the objection to combination, arising out of trade rivalry, proved too strong, and the experiment was tried on too limited a scale to have an appreciable effect on the section as a whole. We are none the less convinced that the best hope for the future lies in this direction, and that well-organised collective exhibits formed, perhaps, under the auspices of local municipalities or chambers of commerce, coupled with symmetrical arrangement, would afford the best means of displaying British industries in their true proportion. It is, however, essential that the preparation of such exhibits should be begun in ample time."

A.—STATEMENT OF EXPENDITURE OF BRITISH ART SECTION.

Exhibition.	Collecting, Packing, Transport and Redistributing.	Insurance.	Decoration of Section and Installation.	Salaries, Wages, etc.	Total.	Number of Exhibitors.	Cost per Exhibitor.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.
1. London, 1862	—	—	—	—	4,201 17 2 ‖	990	—
2. Paris, 1867	—	—	—	—	10,767 0 0	270	39 17 6
3. Vienna, 1873	—	—	—	—	—	135	—
4. Philadelphia, 1876	—	—	—	—	4,185 0 0 ‡	223	18 15 4
5. Paris, 1878	—	—	—	—	7,145 11 7	423	16 17 10
6. Paris, 1889	1,322 0 0	1,225 0 0	617 0 0	700 0 0	3,864 0 0	300	12 17 7
7. Chicago, 1893	4,439 0 0	4,438 0 0	685 0 0	1,768 0 0	11,330 0 0	515	22 0 6
8. Brussels, 1897	1,167 12 11	1,210 13 2	602 1 10	400 0 0	3,380 7 11	259	13 1 0
9. Paris, 1900	2,132 4 7	1,391 1 1	848 4 4	1,020 14 8	5,392 4 8	282	19 1 6
10. St. Louis, 1904 *	5,056 4 5	2,898 4 10	2,265 1 0	1,969 9 0	12,188 19 3 †	706 *	17 5 3
11. New Zealand, 1906–7 *	3,353 8 6 ¶	1,387 4 2	—	—	—	737 *	—

* Including an Applied Art Section.

† This amount does not include the following items, which in the case of previous Exhibitions were paid out of the General Expenses:

	£	s.	d.
Hanging Committee	700	0	0
Travelling and Subsistence	1,660	0	8
Stationery and Printing	177	7	0
Incidental Expenses	106	1	10
	£2,643	9	6

There were receipts to the amount of £205 4s. 10d. for sale of showcases, catalogues etc. The net total cost for the Art Section at St. Louis was therefore £14,627 3s. 11d., or £20 14s. 4d. per exhibitor.

‡ The Royal Academy, which lent a section of their Diploma Pictures, defrayed the cost of insurance, etc., of same.

‖ This amount does not include insurance.

¶ This amount for Packing (£918 15s. 6d.) and Transport (£2,434 13s.) *only* includes the charges for the outward journey, the exhibits not having yet arrived in this country. Decoration and Installation is *not* included.

APPENDIX II.—*continued.*

B.—NUMBER OF WORKS.

Fine Art Section at Various Exhibitions.

Exhibition.	Number of Oil Paintings.	Number of Water-colour Paintings.	Number of Pieces of Sculpture.	Number of Black and White Works.	Number of Architectural Drawings.	Total Number of Exhibits.	Number of Exhibitors.	Number of Exhibits per Exhibitor.	Number of Awards.
London, 1862	Oils and Water-colours. 1,874		321	823	633	3,651	990	3·68	None made.
Paris, 1867	161	137	23	79	175	575	270	2·13	—
Vienna, 1873	74	55	32	70	6	237	135	1·75	35
Philadelphia, 1876	199	57	19	65	41	381	223	1·70	25
Paris, 1878	283	165	46	68	171	733	423	1·73	29
Paris, 1889	172	124	40	123	93	552	300	1·84	137
Chicago, 1893	461	204	53	266	146	1,130	515	2·20	132
Brussels, 1897	205	109	24	222	54	614	259	2·37	23
Paris, 1900	166	89	54	114	47	470	282	1·66	127
St. Louis, 1904	293	158	90	294	190	1,025	501	2·05	Hors Concours
New Zealand, 1906–7	233	209*	83	309	160	994	511	1·90	„ „

* Exclusive of 142 minatures.

APPENDIX III.

COMMISSARIAT DES EXPOSITIONS DE BEAUX-ARTS EN FRANCE ET DE L'ETRANGER.

Le Commissariat des Expositions de Beaux-Arts est un des nombreux services de la Direction des Beaux-Arts érigée dernièrement en Sous-Secrétariat d'Etat, dépendant lui-même du Ministère de l'Instruction Publique, des Beaux-Arts et des Cultes.

Dans l'esprit de la loi le Commissariat des Beaux-Arts fonctionnait pour assurer le service des Expositions d'Etat, tant en France qu'à l'étranger alors que s'organisait annuellement à un moment et plus tard tous les deux ans un Salon des artistes français dit Salon d'Etat où n'exposaient que les artistes choisis par un Jury composé de peintres, Jury nommé par l'Etat et toute l'organisation de ce Salon était confiée au Commissaire des Beaux-Arts.

Depuis 1880 l'Etat a abandonné cette prérogative qui a donné lieu à la création des deux Salons annuels (Sociétés particulières), l'un dit la Société des Artistes Français, l'autre dit la Société Nationale des Beaux-Arts, cette dernière fondée en 1890 représentant le groupement des Artistes dissidents de la première Société. La création récente du Salon d'Automne étant le résultat d'une autre scission, il n'est pas improbable de prévoir que d'autres scissions pourront se produire dans l'avenir et alors il est possible d'envisager devant l'affluence de ces Salons divers que l'Etat reprendra en main l'initiative d'un Salon annuel, biennal ou triennal. Le Commissaire des Beaux-Arts de l'Etat serait alors appelé à reprendre la direction et l'organisation de ce Salon.

L'Etat actuellement ne reprend ses droits que pour les Expositions Universelles en France et pour toutes les Expositions auxquelles il croirait bon de donner son patronage officiel, tant en France qu'à l'étranger.

Le Commissariat des Expositions de Beaux-Arts tel qu'il fonctionne est le service spécial qui le met à même de mener à bien cette tâche.

En ce qui concerne les Expositions à l'Etranger alors que le Parlement a voté un budget spécial pour assurer une représentation des Beaux-Arts Français à une Exposition Universelle Internationale, c'est toujours le Commissariat qui est chargé d'administrer entièrement le budget voté dans la circonstance et d'assurer l'organisation de la Section de Beaux-Arts au nom du Sous-Secrétaire d'Etat et du Ministre responsables devant le Parlement.

Soit dit en passant, le Commissaire est chargé de l'Administration des Fonds du Budget, réunion des œuvres, transport, organisation, placement des œuvres à sa guise, le choix seul des œuvres à exposer lui échappe.

L'élaboration du règlement de chaque Exposition est faite par le Commissaire des Expositions sous la signature du Ministre, il fixe le nombre d'œuvres à recevoir dans chaque catégorie, selon les espaces dont il dispose.

La sélection des ouvrages à exposer est en effet confiée à un Jury nommé par arrêté ministériel, Jury composé en partie des peintres membres de l'Institut, d'autres peintres ayant une situation importante ordinairement pris dans les membres des Bureaux des deux Salons dont il a été parlé plus haut, d'hommes de lettres, journalistes critiques d'art, mécènes, etc., et de toute personne qualifiée par sa situation pour présenter les qualités demandées aux membres de ce Jury.

FONCTIONNEMENT DU COMMISSARIAT DES EXPOSITIONS.

Le Commissariat des Expositions est composé comme suit :

Un Commissaire.

Un Sous-Commissaire.

Un attaché expéditionnaire.

Quatre gardiens.

La composition du Commissariat sur ces bases à titre permanent s'explique par le fait que le Commissaire des Expositions se trouve être le conservateur des œuvres d'art tant sculptures que tableaux, dessins, gravures, objets d'art achetés chaque année par l'état, tant à Paris qu'en Province. Le maniement régulier de ces pièces, la garde des dépôts et l'entretien des œuvres jusqu'à leur départ nécessite l'emploi d'un personnel sûr et compétent dans le maniement délicat des œuvres d'art. C'est ce personnel qui fournit ordinairement les chefs gardiens emmenés à l'Etranger dans les différentes expositions et appelés à diriger les hommes enrôlés à titre exceptionnel. Le budget annuel afférant au Commissariat ne dépasse pas pour le traitement du personnel, frais de bureau, chauffage la somme de 15,000 frs. En cas de participation officielle du Gouvernement, à un Exposition à l'Etranger, un budget spécial est voté pour faire face à cette dépense. A titre spécial le Commissariat des Expositions dispose d'une somme annuelle de 12,000 frs., dépensée à encourager les expositions de Province organisées annuellement dans les principales villes de France par des Sociétés particulières portant pour la plupart le titre de "Société des Amis des Arts." De petites sommes variant entre 300 et 500 frs. sont allouées à ces Sociétés en raison de leur importance quand elles en font la demande.

C'est au Commissariat des Expositions que les artistes trouvent tous les renseignements concernant ces expositions ; le Commissariat se trouve être ainsi un bureau d'informations précieuses pour tous les artistes.

Les renseignements qui précédent résument le rôle officiel du Commissariat des Expositions. Cependant son action officieuse se manifeste sous d'autres formes non moins utiles aux artistes.

Le Commissaire des Expositions se trouve être tout naturellement le correspondant attitré de toutes les Sociétés artistiques étrangères, soit désireuses de former des groupements à Paris, soit désireuses de voir des artistes français prendre part à leurs expositions temporaires. Le Commissaire des Expositions se trouve mieux placé que tout autre pour dresser une liste des invitations à faire et c'est dans ses bureaux qu'on trouve tous les règlements de Sociétés étrangères importantes telles que celles de Munich, Vienne, Venise, etc.

Le Commissaire se charge toujours gratuitement de la réunion des œuvres d'une exposition alors qu'on lui en adresse la demande.

Enfin le Commissaire des Expositions peut susciter des expositions temporaires soit en France, soit à

l'Etranger s'il trouve auprès de personnes désireuses d'en couvrir les frais, les fonds nécessaires à ces expositions.

Il obtient toujours la permission du Sous-Secrétaire d'Etat de s'occuper d'expositions de ce genre, soit qu'il choisisse lui-même les artistes exposants, soit comme le demandent quelquefois bien à tort les personnes à la tête de ces expositions, que ce choix soit fait par un Jury spécialement constitué à cet effet.

En résumé quelques soient les fortunes diverses qu'ait subies le Commissariat des Expositions selon les dispositions d'esprit des dirigeants politiques, cette organisation permanente rend les plus grands services, c'est dans ses bureaux que se font touts les projets et travaux spécieux touchant aux expositions de tout genre, très rapidement, avec tout les éléments nécessaires aux conclusions les plus pratiques et les plus économiques.

I N D E X.

All Exhibitions are entered directly under the name of the City in which the Exhibition is held, and not under the name of the Country.

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ROYAL COMMISSION ON LIGHTHOUSE ADMINISTRATION.

VOLUME I.

REPORT

OF THE

ROYAL COMMISSION

ON

LIGHTHOUSE ADMINISTRATION.

Presented to both Houses of Parliament by Command of His Majesty.

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Royal Commission.

Whitehall, August 22, 1906.

The KING has been pleased to issue a Commission under His Majesty's Royal Sign Manual to the following effect :—

EDWARD R. and I.

Edward the Seventh, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas King, Defender of the Faith, to

Our right trusty and well-beloved Councillor Gerald William Balfour ; and

Our trusty and well-beloved :—

Sir Frank Forbes Adam, Knight, Companion of Our Most Eminent Order of the Indian Empire ;

Ivor John Caradoc Herbert, Esquire, Companion of our Most Honourable Order of the Bath, Companion of Our Most Distinguished Order of Saint Michael and Saint George, Colonel in Our Army ;

William Hannam Henderson, Esquire, Vice-Admiral in Our Royal Navy ; and

Michael Andrew Ennis, Esquire ; Greeting !

Whereas We have deemed it expedient that a Commission should forthwith issue to inquire into the existing system of management of the Lights, Buoys, and Beacons on the coast of the United Kingdom by the three General Lighthouse Authorities, and as to the constitution and working of these Authorities, and to report what changes, if any, are desirable in the present arrangements :

Now know ye, that We, reposing great trust and confidence in your knowledge and ability, have authorised and appointed, and do by these Presents authorize and appoint you, the said Gerald William Balfour (Chairman) ; Sir Frank Forbes Adam ; Ivor John Caradoc Herbert ; William Hannam Henderson ; and Michael Andrew Ennis, to be our Commissioners for the purposes of the said inquiry :

And for the better effecting the purposes of this Our Commission, We do by these Presents give and grant unto you, or any three or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission ; and also to call for, have access to and examine all such books, documents, registers and records as may afford you the fullest information on the subject, and to inquire of and concerning the premises by all other lawful ways and means whatsoever :

And We do by these Presents authorize and empower you, or any three or more of you, to visit and personally inspect such places as you may deem it expedient so to inspect for the more effectual carrying out of the purposes aforesaid :

345. 2500.—Wt. T.L. 275. 2/08.—Wy. & S.

And We do by these Presents will and ordain that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any three or more of you, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment :

And We do further ordain that you, or any three or more of you, have liberty to report your proceedings under this Our Commission from time to time if you shall judge it expedient so to do.

And Our further will and pleasure is that you do, with as little delay as possible, report to Us, under your hands and seals, or under the hands and seals of any three or more of you, your opinion upon the matters herein submitted for your consideration.

And for the purpose of aiding you in your inquiries We hereby appoint Our trusty and well-beloved Charles Clive Bigham, Esquire, Companion of Our Most Distinguished Order of Saint Michael and Saint George, Captain in Our Army, to be Secretary to this Our Commission.

Given at Our Court at St. James's the twenty-first day of August, one thousand nine hundred and six, in the sixth year of Our Reign.

By His Majesty's Command,

H. J. GLADSTONE.

Note.—The King was subsequently pleased to create Colonel Herbert a Baronet.

ROYAL COMMISSION ON LIGHTHOUSE ADMINISTRATION.

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ROYAL COMMISSION ON LIGHTHOUSE ADMINISTRATION.

REPORT.

TO THE KING'S MOST EXCELLENT MAJESTY,

MAY IT PLEASE YOUR MAJESTY,

We now humbly beg to lay before Your Majesty our Report on the matters remitted to us.

1. The Terms of Reference to us were "To inquire into the existing system of management of the Lights, Buoys and Beacons on the coast of the United Kingdom by the three General Lighthouse Authorities, and as to the constitution and working of these Authorities, and to report what changes, if any, are desirable in the present arrangements."

2. In carrying out the task entrusted to us we have held 22 meetings, and have examined orally 29 witnesses.

In regard to the examination of the latter, the procedure which appeared to us the most satisfactory, and which we followed, was, first to obtain from representatives of the Board of Trade and of the three General Lighthouse Authorities an account of the existing system of administration, and of the past history and present constitution of the bodies charged with carrying it out; next to hear the views of the Admiralty and of such associations of Shipowners, Underwriters, Shipmasters, and Harbour Authorities as were concerned with the questions before us; and finally again to examine the Lighthouse Authorities on the evidence we had already received, and with which we had caused them to be furnished, and to hear their considered replies upon it.

3. In addition we called for a number of Returns and Statements of Account both from the Board of Trade and from the three General Lighthouse Authorities, some of which are set out in the Appendices to this Report. We would take this opportunity of bearing testimony to the readiness with which all these papers, often involving considerable labour, were supplied to us, and the care and thoroughness exhibited in their preparation.

4. Further, we have been furnished by the India, Colonial, and Foreign Offices respectively with information on the methods of Lighthouse Administration obtaining in India, the Dominion of Canada, the Commonwealth of Australia, and New Zealand, as well as in France, the German Empire, Italy, and the United States of America.

5. Some of our number have visited personally the establishments of the three General Lighthouse Authorities, and we have also inspected their minute and log books, as well as their quarterly and yearly financial accounts and those of the General Lighthouse Fund.

6. In the framing of our Report on the subjects referred to us it will be convenient, in the first place, to give a short history of the General Lighthouse Authorities and of recent inquiries and legislation affecting them; next to describe in detail their constitution and powers and the general system of administration; then to consider the working of that system more especially with regard to the faults alleged against it and the remedies suggested for them; and finally to formulate our conclusions and present our recommendations.

(I.) SHORT HISTORY OF THE GENERAL LIGHTHOUSE AUTHORITIES AND OF RECENT LEGISLATION WITH RESPECT TO THEM.

History of the General Lighthouse Authorities.

7. In the early days of British maritime expansion the few seamarks existing appear to have been erected for the most part by private individuals or associations, who levied dues on passing ships under patents from the Crown. But as mercantile sea traffic increased, the need of uniformity in the methods of lighting the coasts and harbours was recognised, and there gradually arose more or less official bodies which undertook the regulation of all such matters, and these Authorities were, in process of time, invested by Parliament with administrative and financial powers.

At the present time the lighting of the coasts and harbours of the three Kingdoms is managed by three General Lighthouse Authorities, namely, the Trinity House for England and Wales, the Commissioners of Northern Lighthouses for Scotland, and the Commissioners of Irish Lights for Ireland, and by a number of Local Lighting Authorities.

8. Of the three General Lighthouse Authorities the Trinity House has the precedence, both in antiquity and in respect of the powers which it exercises. Originally, in the days of King Henry VII., an Association for Piloting Ships, it received its first charter as a Corporation in 1514, and at the time of the Restoration was already able to devote a portion of its funds to charitable purposes. In 1680 the first lighthouse under its management was erected, and from that date onwards it gradually became the recognised official Lighting Authority of the English and Welsh coasts, deriving its revenue from a number of fees, such as Pilotage, Lastage, Loadmanage, Ballastage, etc., which were paid by mariners in return for its expert services. By the commencement of the nineteenth century these fees had become in great part merged into their present form of Light Dues, and this position was regulated by Act of Parliament in 1822.

In 1854 the Trinity House was constituted the General Lighthouse Authority for England and Wales, the financial control of the Lighthouse Administration being at the same time transferred to the Board of Trade. In 1871 by a supplemental charter the number of its members was somewhat reduced. Apart from this change its constitution remains as defined by the charter granted by King James II. in 1685.

The composition and the powers of the Trinity House will be described in detail in due course, but it may be as well here to mention that, in addition to its duties as Lighthouse Authority for England and Wales (which extend also to the Channel Islands and Gibraltar), it has certain special powers of inspection and control over the two junior General Lighthouse Authorities of the United Kingdom. Its members, unlike those of the Scottish and Irish Boards, are always nautical experts, and are paid for their services.

9. The Northern Lighthouse Commissioners, who direct the lighting of the coasts and islands of Scotland and of the Isle of Man, are a much more modern creation than the Trinity House. First constituted by Act of Parliament in 1786, they were incorporated 12 years later, and after sundry extensions of powers and modifications of constitution were finally established in their present form in 1894. A description of their composition and duties and of those of the Irish Board is given later.

10. The Commissioners of Irish Lights date *eo nomine*, from the year 1867, but the Corporation now known by that name derives its constitution from an Act passed in 1786, entitled "An Act for promoting the Trade of Dublin by rendering its Port and Harbour more commodious." The body incorporated by that Act, and successively described as the Corporation for preserving and improving the Port of Dublin, and the Port of Dublin Corporation, was invested with lighting powers of a general character for the first time in 1810. In 1854 these powers were extended and defined by the Merchant Shipping Act, but it was not until 1867, when the Corporation received its present title of Commissioners of Irish Lights, that it was relieved of its local duties in connection with the Port of Dublin, and confined to its functions of General Lighthouse Authority for Ireland.

Inquiries and Legislation relating to Lighthouse matters within recent years.

11. The principal Government inquiries and legislative measures in connection with the Lighthouse Administration of the United Kingdom during the last hundred years have been as follows :—

In 1822 a Select Committee on Foreign Trade recommended the purchase of interests in private or leased lights, the introduction of a tonnage rate system of Light Dues, and a central administrative control of Lighthouses. In the same year an Act of Parliament gave the Trinity House powers to acquire seamarks from public bodies or private individuals, to fix rates approved by the King in Council, and also to draw on the annual funds of the Corporation up to £7,000 for the payment of the Elder Brethren in lieu of the remuneration they had received theretofore, commonly called "Elder Turns."

In 1834 a second, and in 1845 a third, Committee endorsed to some extent these recommendations, suggesting the Trinity House, with an added Admiralty or other official element, as the Central Authority.

In 1854 the Merchant Shipping Act became law. This Act inaugurated the Mercantile Marine Fund and constituted the three General Lighthouse Authorities, giving to the Board of Trade the financial control over them.

In 1858 the Royal Commission on Lights, Buoys and Beacons (Admiral Hamilton's) was appointed. Its Report in 1861 advocated, *inter alia*, a specially constituted Central Board to be represented in Parliament by the Admiralty or the Board of Trade.

In 1871, by an arrangement between the Board of Trade and the Trinity House the number of Acting Elder Brethren was reduced from 20 to 13, a supplemental charter being granted to enable this course to be taken.

In 1894 the second Merchant Shipping Act was passed, which, so far as it concerns Lighthouse Administration, was to a large extent merely a repetition of the 1854 Act.

In the same year the Board of Trade appointed a Departmental Committee, of which Lord Courtney was Chairman, to consider the question of Light Dues. This reported in 1896, its principal recommendations being the creation of a separate fund for defraying the expenses of the General Lighthouse Authorities—these expenses having been hitherto met out of the Mercantile Marine Fund—and the substitution of a tonnage and voyage scale of Light Dues in place of the previously existing system of tolls. These recommendations were adopted by the Merchant Shipping (Mercantile Marine Fund) Act of 1898, which altered the basis and scale of the Light Dues and created the General Lighthouse Fund.

In addition to the above, several minor Acts have been passed for modifying the position of the Scottish and Irish Lighthouse Boards. These have already been alluded to, but they are of no general importance.

(II.) DESCRIPTION OF THE CONSTITUTION AND POWERS OF THE THREE GENERAL LIGHTHOUSE AUTHORITIES AND OF THE SYSTEM OF ADMINISTRATION.

Constitution of the General Lighthouse Authorities.

Trinity House.

12. The Trinity House of Deptford Strond consists of 24 Elder and an unlimited number of Younger Brethren. The Brethren hold their offices for life. The Master is generally a Royal Prince, the present Master being H.R.H. the Prince of Wales. The Elder Brethren are divided into 11 Honorary Members, who are usually Royal Personages or distinguished men of affairs, and who receive no remuneration, and 13 Acting Members, who have all had some sea service, and are retired officers either of the Royal Navy or of the Mercantile Marine. The Acting Members alone are concerned with the Lighthouse Administration. Their salaries are paid from the sum of £7,000 allotted for this purpose by the Act of 1822, and amount, according to present arrangements, to £1,000 for the Deputy Master, and £500 for each of the remaining Acting Members. In addition they become entitled to other fees in connection with attending the Pilotage Committee and the Thames Conservancy Board, and for sitting as Assessors in the Court of Admiralty; these latter fees, which do not come from the General Lighthouse Fund, amount to an aggregate of about £1,500 a year. Members who do not attend the meetings of the Board or of Committees are fined for each non-attendance on a scale which may reduce their annual income by about £100.

The Elder Brethren are co-opted at meetings of the Corporation, but it is not usual for the Honorary Members to take part in the election of Acting Members. The Acting Elder Brethren are elected from among the Younger Brethren, and must have attained the rank of Commander and have had command of a ship of war at sea for at least three years, if in the Royal Navy, or must have served in command at sea on foreign voyages for four years if in the Merchant Service.

The Younger Brethren, of whom there are usually some 200, are nominated by any two Elder Brethren. No special qualification is necessary, but in practice only persons connected with the Navy or the Merchant Service, or who hold a Master's certificate are ever chosen. The Younger Brethren, who are usually men in the active exercise of their profession, have no duties in connection with the Trinity House, and receive no remuneration.

In the performance of the services of its Lighthouse administration the Trinity House employs a large paid establishment of secretaries, clerks, engineers, superintendents, lighthouse-keepers and mechanics, which will be described later on.

Commissioners of Northern Lighthouses.

13. The Commissioners of Northern Lighthouses form a Board of 25 members constituted at present as follows:—

(*a*) The two Scottish Law Officers.

(*b*) The Lord Provosts of Edinburgh, Glasgow, Aberdeen and Dundee, and the Provosts of Inverness, Campbeltown, Greenock and Leith.

(*c*) The eldest Bailies of Edinburgh and Glasgow.

(*d*) The Sheriffs of the counties of the Lothians and Peebles; Lanark; Renfrew and Bute; Argyle; Inverness, Elgin and Nairn; Ross, Cromarty and Sutherland; Caithness, Orkney and Shetland; Aberdeen, Kincardine and Banff; Ayr; Fife and Kinross; Forfar; Dumfries and Galloway; Roxburgh, Berwick and Selkirk.

The Commissioners have power to elect the provost or chief magistrate of any royal or parliamentary burgh on or near any part of the coasts of Scotland and the sheriff of any county bordering on those coasts to be a member of their body; but so far as the sheriffs are concerned this power is now exhausted.

These gentlemen, all of them Scottish judicial or administrative functionaries, hold their position *virtute officii*, and give their services gratuitously. Like the Trinity House, they have a paid establishment for the performance of their Lighthouse duties.

Commissioners of Irish Lights.

14. The Commissioners of Irish Lights consist of five *ex officio* members, namely, the Lord Mayor, the High Sheriff, and three Aldermen of the City of Dublin, and 17 others who are co-opted, subject to the veto of the Lord Lieutenant in Council, all the members taking part in the election when a vacancy occurs. No special qualification is required in the case of the co-opted members, and their period of office is only terminated by death or by resignation. The services of these Commissioners, like those of the Scottish Board, are gratuitous, and they also have a paid establishment for their Lighthouse duties.

Local Lighthouse Authorities.

15. In addition to the three General Lighthouse Authorities there are, as has already been mentioned, a number of Local Lighthouse Authorities in the United Kingdom. These Authorities, which number some 425, may be either Harbour Commissioners, Conservancy Bodies or private owners of harbours, and the lighting of most of the harbours and estuaries on our coasts is in their charge.

In some cases, however, as in that of the Thames, the General Lighthouse Authority is responsible for the lighting of the whole port, while in others, of which the Mersey is the chief example, the harbour authority not only lights the river but also a large extent of sea forming the approach to the harbour.

The General Lighthouse Authorities have certain powers of inspection and control over the Local Lighthouse Authorities, which are noticed later, but they are otherwise excluded from any jurisdiction where Local Lighthouse Authorities exist.

The constitution and administration of the Local Lighthouse Authorities are outside the Terms of Reference to this Commission, but it is necessary to allude to them in order clearly to explain the general arrangement.

Powers of the General Lighthouse Authorities.

Duties and Powers common to all three Authorities.

16. The three General Lighthouse Authorities are charged with the superintendence and maintenance of the lights, buoys and beacons in their respective portions of the United Kingdom. Subject in the case of the Scottish and Irish Boards to certain limitations, to be mentioned presently, they may erect new seamarks and alter or remove existing ones. In no case, however, can they incur expenditure to be paid out of the General Lighthouse Fund until an estimate of it has been approved by the Board of Trade, and they are further bound to furnish the Board of Trade with any Returns or information asked for.

17. The three General Lighthouse Authorities are also empowered to levy and collect Light Dues on ships engaged in voyages to and from ports in the United Kingdom, the monies collected to be paid over to the Paymaster-General, and accounted for to the Board of Trade. By Departmental arrangement, however :—

(1) The Dues are collected by the officers of Customs only.

(2) The power of levying them in Scotland and Ireland has been delegated to the Trinity House.

(3) The collectors of Customs account to the Trinity House for the Light Dues collected, but remit the amounts received direct to the Paymaster-General, as instructed by the Board of Trade, and

(4) The Board of Trade remit to the General Lighthouse Authorities the amounts required for carrying on the Lighthouse Service.

18. The three General Lighthouse Authorities are further charged with the duty of inspecting all seamarks of the Local Lighthouse Authorities within their respective areas, and reporting on them to the Board of Trade; and in certain cases they may issue instructions to Local Lighthouse Authorities. They have special powers as to acquiring necessary land for Lighthouse purposes; and it is part of their functions to remove wrecks within their jurisdiction which may be a danger or an obstruction to navigation.

Special Powers of the Trinity House.

19. The Trinity House, in addition to its position as the General Lighthouse Authority for England and Wales, has also certain powers affecting the other two General Lighthouse Authorities. These relate (*a*) to inspection; (*b*) to construction of New Works.

(*a*) The Trinity House may at any time inspect any lighthouses in the United Kingdom.

(*b*) When the Scottish or Irish Boards wish to exercise any of their Lighthouse powers (*i.e.*, to erect, add to, alter, remove, or vary the character of any lighthouse, or to erect, alter, or remove any buoy or beacon), they must first of all submit to the Trinity House a scheme showing what they wish to do, and in what manner and for what reasons. The Trinity House consider and report on this scheme to the Commissioners submitting it, and finally forward it, together with their report and any correspondence that has passed, for consideration by the Board of Trade, with whom the ultimate decision rests.

20. Further, the Trinity House may, with the sanction of the Board of Trade, direct either of the other General Lighthouse Authorities to erect, continue, add to, alter, or remove any lighthouse, buoy, or beacon, or to vary the character of any lighthouse. It is doubtful whether this power has ever been exercised.

21. The Trinity House is also invested with powers relating to certain Colonial Lighthouses, but inquiry into these is not within the Terms of our Reference.

Powers of the Board of Trade.

22. The powers of the Board of Trade have already been indicated to some extent. The direct financial control over the expenditure of the three General Lighthouse Authorities is in their hands, and with it the ultimate decision respecting any proposals for New Works. In the case of proposals for New Works put forward by the Scottish or Irish Authorities, the sanction of the Board of Trade is expressly required by statute in addition to that of Trinity House, and should the latter withhold sanction from any such proposal an appeal stands to the Board of Trade. The Board of Trade have inspecting powers over all the General Lighthouse Authorities, and they may at any time call for any Returns from those Authorities, and may inspect alike their books and their seamarks. They also require the General Lighthouse Authorities to submit for their approval all contracts for works, stores, and other supplies. They have, however, no statutory authority to initiate expenditure or make proposals for New Works. That belongs to the functions of the Lighthouse Authorities, on whom also devolves the entire ordinary work of administration.

For the consideration of Lighthouse questions and other similar purposes the Board of Trade have the assistance of:—

(*a*) an expert Nautical Adviser, usually a Captain in the Royal Navy;

(*b*) of the Trinity House, to whom they refer any Lighthouse matters they may judge expedient; and

(*c*) of the Advisory Committee described below.

Advisory Committee representing Shipping Interests in the United Kingdom.

23. The history of the Advisory Committee is as follows:—In 1899, after the Report of Lord Courtney's Committee already mentioned, the Chamber of Shipping of the United Kingdom, the Shipping Federation, and the Associated Chambers of Commerce approached the Board of Trade, of which the late Lord Ritchie was then President, with a request that representation should be given to shipowners and shipmasters on the three General Lighthouse Authorities, and that these Authorities should be reconstructed. While unable to agree to this the Board of Trade offered, if the Chambers of Commerce and the Chamber of Shipping would nominate a Representative Committee, that they should be annually consulted with regard to the erection, position and cost of New Works. This offer was accepted, and a

Committee was accordingly constituted, though of course with no legal status, consisting of—

4 shipowners representing England,

2 shipowners representing Scotland

2 shipowners representing Ireland,

2 merchants, and

2 underwriters,

selected respectively by the Executive Council of the Chamber of Shipping, the Council of the Associated Chambers of Commerce, and the Committee of Lloyd's.

Since 1900 this Advisory Committee has been furnished with the proposals of the three General Lighthouse Authorities as to New Works, and has subsequently met representatives of these Authorities and of the Board of Trade at an Annual Conference, where the arguments for and against any proposal can be put forward and discussed before the different estimates are finally approved. In urgent cases of New Works which involve large expenditure and the consideration of which cannot be delayed, the opinions of the Advisory Committee are asked by letter.

General Lighthouse Fund.

24. By the Merchant Shipping (Mercantile Marine Fund) Act 1898, all the Light Dues received by the General Lighthouse Authorities and all expenditure incurred by them, whether for establishments or for New Works, are credited or debited to the General Lighthouse Fund which took the place, for Lighthouse services, of the Mercantile Marine Fund. The method of collection of the Light Dues and the system of disbursement has already been explained.

The receipts and expenditure of this Fund for the last three years respectively are :—

	Receipts.	Expenditure.
1903–4 - - - - -	£525,910	£555,127
1904–5 - - - - -	£510,729	£521,930
1905–6 - - - - -	£518,719	£521,381

There is also an accumulated surplus from which in the years above-mentioned, the excess of expenditure has been met. This surplus amounted at the beginning of the financial year 1905–6 to £81,551 in cash, and £274,365 in investments, of which a certain proportion belonged to the Basses Lights Fund.

The Fund is under the control of the Board of Trade, who, when they have checked the accounts of the three General Lighthouse Authorities and compared them with the estimates sanctioned, forward them to the Audit Office, by whom they are yearly laid before Parliament.

System of Administration.

General Financial System.

25. As regards their financial relations with the Board of Trade, all three Authorities follow the same procedure, of which it will be as well to give some short account.

As has been already stated, the three General Lighthouse Authorities can incur no expenditure until an estimate has been approved by the Board of Trade. Estimates, accordingly, are yearly submitted by each of the three Authorities in the month of October or November for the expenditure of the next financial year, and when the New Works and other increases proposed have been considered by the Board, a Conference is held in December between them and the Representatives of the three Authorities. Following on this a further Conference is held in January or February, at which the Advisory Committee, who have been previously furnished

with copies of the provisional estimates for New Works, are also present, and the estimates, with any modifications that may have been adopted, are then finally approved by the Board of Trade.

The Establishment expenses amount to over three-fifths of the total expenditure, and are comparatively constant. The rates of pay are fixed by Order in Council, with the exception of some temporary salaries which can be approved directly by the Board of Trade. This also applies generally to pensions, which must be sanctioned by the Board of Trade, and which are regulated on the same scale as those under the Civil Service Superannuation Act.

The principal item of expenditure on which action has to be taken is therefore New Works. Once sanctioned, these are proceeded with, either directly by the Lighthouse Authority concerned, or by contract after tender, according to the estimate approved.

The financial procedure above described is followed in the case of each of the three General Lighthouse Authorities, but as in other respects their methods of administration are somewhat dissimilar, it will be well to consider them separately.

Trinity House.

26. The full Board meets once a week, and is principally concerned with the consideration of any special questions which may be referred to it by the three Committees into which it is subdivided for Lighthouse purposes. These Committees are :—

(1) *The Wardens' Committee,* which deals with matters of finance and accounts, questions of Light Dues, tenders and contracts, and with special matters.

(2) *The Lights' Committee,* which is the executive committee for administering the lighthouse, lightvessel, steamvessel, buoy, and beacon services, and deals as well with the maintenance and repair of stations, the store department, the carrying out of experiments, and questions connected with the personnel. This Committee also attends to the Removal of Wrecks.

(3) *The Examining Committee,* which periodically visits the whole coast line, and checks or alters as required the position of seamarks, advises as to new lights, issues Notices to Mariners, and reports on all Local Lights, and on proposals of the other two General Lighthouse Authorities. This Committee also acts as the Pilotage Committee.

Although these Committees only sit on two days a week, the majority of the Elder Brethren are occupied daily with the work of the office, unless they are afloat on duty round the coast as special Visiting Committees (which are appointed as required) or otherwise.

The headquarters establishment of the Trinity House comprises the Secretary's Department, which consists of two principals, 14 clerks and some boy clerks, and deals with the routine work of the service; and the Engineer's Department, with a staff of some 10 assistants and draughtsmen, which is concerned with the technical engineering work. There is also a Scientific Adviser.

For the purposes of administration the coast line is divided into seven districts, each under a local superintendent, who, in addition to his other duties, inspects and visits all stations in his district every quarter. Under these superintendents are 237 lightkeepers employed at 82 stations. There are also 558 seamen on 52 lightvessels, and 41 men at district depôts.

In addition the Trinity House maintains the Blackwall Workshops, furnished with a power plant, storehouses, etc., and employing 160 mechanics and workmen. There are also 11 steam vessels with crews of 202 men for carrying stores, visiting the coasts, etc. The total number of men employed is 1,250, and the average annual cost of the Service during the seven years from 1900 to 1906 amounted to £271,102.

Commissioners of Northern Lighthouses.

27. In the case of the Northern Lighthouse Commissioners the ordinary work of administration is in a large measure left to the Secretary, whose duties practically include those of General Manager as well. The Board itself meets fortnightly. There are also two standing Committees, one on Finance and one on New Works. These Committees together meet on an average rather less than once a week. An Inspection Committee is also appointed once a year for the purpose of visiting the coasts.

The Secretary has a staff of six clerks, a superintendent, and assistant superintendent, whose duty it is to visit and inspect the various stations, and three district superintendents, who are really mechanical engineers, charged with the execution of all ordinary repairs.

The position of the Engineer is a peculiar one. He is not a salaried official, but a member of a private firm, paid partly by fees calculated on the amount of time devoted to the service of the Commissioners, partly by a percentage on the cost of works designed by him and carried out under his superintendence. In addition to his regular duties as Engineer, he acts as Scientific Adviser to the Board, and is also consulted as to the necessity or otherwise of new seamarks, and the position and character most suitable for them.

The number of lightkeepers, etc., employed at the 91 stations under the Scottish Board is 290, and there are four steamers and tugs for visiting purposes, as well as one lightvessel, with crews of 105 men. The total number of men employed is 410, and the average annual cost of the Service during the seven years from 1900 to 1906 amounted to £92,642.

Commissioners of Irish Lights.

28. The Commissioners of Irish Lights meet as a Board once weekly, and are also sub-divided into five Committees—the Finance, Inspecting, Office (salaries and appointments), Removal (personnel), and Stores and Steamers Committees. Of these the first alone is a standing Committee and meets weekly, the others being only summoned when required. The Inspecting Committee goes round the coast once yearly.

The routine administration is carried on principally by the Secretary, though with perhaps more limitations than is the case in Scotland. His staff consists of seven clerks, an inspector, an assistant inspector, and a surveyor of shipping, and that of the Engineer of three assistant clerks, one permanent and several temporary draughtsmen, a foreman mechanic, and a certain number of workmen in permanent employment. The Irish Board, like the Trinity House, retains the services of a special Scientific Adviser.

The regular visiting of the various stations is performed by the inspector and his assistant, while in most cases mechanics from the Kingstown Works do the necessary engineering repairs at the different lighthouses.

The number of lightkeepers employed is 180 at 74 stations, and there are 11 lightvessels and three steamers with crews of 205 men. There is also a store depot and a small engineering establishment at Kingstown, with 25 permanent employés, men coming in from lightvessels being also made use of temporarily at these workshops. The total number of men employed by the Irish Lights Commissioners is 434, and the average annual cost of the Service during the seven years from 1900 to 1906 amounted to £117,389.

Differences in Methods of Administration.

29. This short account of the administration of the three General Lighthouse Authorities is sufficient to indicate some of the more important points in respect to which their methods vary. The paid Board of experts, the Trinity House, identify themselves much more closely and much more continuously with the daily details of the Lighthouse service, both ashore and afloat, than do the other two Authorities, whose members are unpaid and are seldom experts. Moreover, on the Scottish

and Irish Boards only a relatively small proportion of the whole number of Commissioners can be said to take a continuously active share in the work. The regular attendants at Board and Committee meetings are all residents in the immediate neighbourhood of Edinburgh or Dublin. It belongs to the very nature of the case that the position of the Scottish and Irish Commissioners is practically that of a Board of Directors which entrusts the whole of the routine work of administration to a General Manager, reserving to itself only a financial supervision, the decision on matters of policy, and an ultimate general control. Such a system may be highly efficient. It certainly has proved efficient in the case of the Scottish Board, most of whose active members form a homogeneous body of trained professional men, occupying important posts under the Crown. But its success must depend in very large measure on the character and competence of the chief officials of the Board, in particular of the Secretary, on whom the duties of General Manager devolve.

30. Apart from the broad contrast thus presented between the Elder Brethren on the one side and the Scottish and Irish Commissioners on the other, attention may be drawn to some other points of difference in the administrative methods of the three Authorities.

The peculiar position occupied by the Engineer to the Scottish Board has already been noticed. It may be in part a consequence of this position that, whereas the Trinity House and the Irish Board maintain regular engineering establishments, the one on a considerable, the other on a small scale, for carrying out repairs and other work, the Commissioners of Northern Lighthouses have no workshops of their own, all repairs which cannot be carried out on the spot by the "district superintendents" on the head office establishment with the aid of hired mechanics, being executed by contract. Similarly with regard to New Works: if the Trinity House and the Commissioners of Irish Lights arrive at the conclusion, on the report of their engineers, that a given New Work can be wholly or partly carried out by themselves more cheaply than by contract, they proceed so to carry it out, of course, with the sanction of the Board of Trade. This course has been followed in some important cases within recent years. For instance, the new Lighthouse at Beachy Head and the two stations at Lundy Island were constructed by the Trinity House direct, and the Fastnet Lighthouse by the Commissioners of Irish Lights. Indeed, the Engineer of the Irish Board estimated that more works were carried out by himself and his staff than by contract. The Scottish Board, on the other hand, give all New Works out to contract.

With regard to reliefs the Trinity House relieve their lightvessels once, the Northern Lighthouse Commissioners twice, and the Irish Lights Commissioners three times a month, a divergence in system which necessarily carries with it a difference in cost.

The point of greatest difference in the work of the three Boards is that the Trinity House have to maintain 52 lightvessels in position, whereas the Irish Board have only 11 and the Scottish Board one. It follows that the Trinity House have to maintain a much larger number of steam tenders than the other Boards, and this in its turn reacts on the arrangements necessary for relief, for the distribution of stores, and for the supply of gas to beacons and buoys; and, as the cost of the work done by these vessels in discharging their multifarious duties cannot be apportioned between the different services, it has to be charged under the heading "Maintenance of Steamvessels."

The fact that similar items of expenditure are not always, and in some cases cannot be shown under the same headings, affords one illustration out of a number which might be given of the difficulty of instituting any satisfactory comparison of expenditure as between the three General Lighthouse Authorities. Notwithstanding that their accounts are all drawn up on the same general model, real uniformity is unattainable, because their administrative methods are not identical. To this difficulty we shall presently have occasion to return. In the meantime it is only right to point out that such varieties of practice as have been mentioned are not necessarily arbitrary or accidental, but arise, in some cases at least, from the different conditions with which the several Authorities have to deal. It has never been the policy of the Board of Trade to fetter the discretion of the Lighthouse Boards or diminish their responsibility for the sake of securing artificial uniformity of system.

(III.) CONSIDERATION OF THE WORKING OF THE PRESENT SYSTEM OF LIGHTHOUSE ADMINISTRATION, WITH ITS ALLEGED FAULTS AND THE REMEDIES SUGGESTED.

31. The preceding pages will have given some general idea of the lines on which the present administration of the Lighthouse Service of the United Kingdom is conducted. It will now be convenient to examine into the criticisms passed on the existing system, and on the Authorities who administer it, and also to consider any explanations or justifications put forward by those Authorities in reply.

For the sake of clearness we may distinguish between (*a*) *administrative* criticisms, directed against the manner in which the Lighthouse Authorities perform their work; and (*b*) *constitutional* criticisms, reflecting on the composition of the Authorities and on the general system of which they form the most important factors.

(*a*) *Administrative Criticisms.*

Charges of Extravagance.

32. The principal charge made against the administrative work of the Lighthouse Authorities is that of extravagance. A very general impression undoubtedly exists among shipowners, and seems to be to some extent shared by Associations of officers of the Mercantile Marine, that the administration of the Lighthouse Boards is wasteful and uneconomical. But when this general impression comes to be translated into more specific allegations, we have found it for the most part very weakly supported. The witnesses who most strongly urged the charge of extravagance were Mr. Norman Hill, who spoke on behalf of the Liverpool Steamship Owners' Association, the members of which own more than 21 per cent. of the total British steam tonnage afloat, and Captain Wade, a retired shipmaster, representing the Mercantile Marine Service Association.

33. Mr. Hill's contention rests chiefly on a comparison of the average annual expenditure of the three Lighthouse Boards during the six years ending the 31st March, 1899, with the average annual expenditure during the subsequent period of six years. His reason for comparing the expenditure since the 31st March, 1899, with the expenditure prior to that date he explained to be that with the coming into operation of the Merchant Shipping (Mercantile Marine Fund) Act of 1898 Treasury control over Lighthouse expenditure ceased, and with it the only effective check upon uneconomical management. This is a misapprehension on Mr. Hill's part. There never was any Treasury control over Lighthouse expenditure, and the control by the Board of Trade was the same after 1899 as before. Relying, however, on his figures of average annual expenditure, Mr. Hill points to an increase amounting to 18·2 per cent. as between the two periods, or, deducting increases due to New Works, to 12·8 per cent. Mr. Hill informed us that he knew of no reason for this increase of 12·8 per cent. He had apparently omitted to consider the inevitable increase in ordinary administrative expenses consequent upon the new seamarks added during the years in question. On this point, therefore, the Lighthouse Authorities had an easy reply. The figures put before us by the Secretary to the Scottish Board in this connection are especially striking. He prepared a statement of the number of new seamarks established by the Commissioners in the second of Mr. Norman Hill's periods, or at the very end of the first period, the charges for whose maintenance actually fell in the second period. According to this statement the percentages of increase are:—lighthouses 9·8 per cent.; fog-signals over 50 per cent.; minor lights 200 per cent.; regular lightkeepers 11·5 per cent.; minor light attendants 200 per cent.; gas beacons 100 per cent.; gas buoys nearly 100 per cent.; gas works 50 per cent.; steamers 33·3 per cent.; storehouses 100 per cent. 5483.

We are inclined to think that at least in the case of the Commissioners of Northern Lighthouses, and perhaps in the case of the other two Boards, the increase in the number of seamarks with which they have to deal is of itself quite sufficient to account for the increased cost of maintenance in Mr. Norman Hill's second period as compared with the first. Of course it does not necessarily follow that there was not uneconomical management during both periods.

34. With regard to expenditure under the separate headings Mr. Hill founds his conclusions avowedly upon totals, which he considers extravagantly high. In the case of most of these totals, his evidence did not go beyond a mere declaration of opinion unsupported by anything in the shape of argument, and hardly calls for further notice here. Only as respects the amount spent on New Works was any ground of objection offered, and on this subject a few words may be added. Mr. Norman Hill takes as the established standard for the annual expenditure proper to be incurred on New Works an estimate given by the Lighthouse Authorities to Lord Courtney's Committee in the year 1896. The representatives of the Trinity House, the Northern Lighthouse Commissioners, and the Irish Lights Commissioners at that time expressed the opinion that £25,000, £10,000, and £15,000 expended annually by the three Boards respectively on New Works, or £50,000 in all, would be fairly satisfactory. As a matter of fact, in no subsequent year has the expenditure on New Works fallen so low as £50,000, and the annual average has been very much higher. On this ground it is condemned by Mr. Norman Hill as excessive. We are unable to attach to this figure of £50,000 the sanctity which appears to be ascribed to it in certain quarters; and we think the safer inference to be drawn from the experience of the last ten years is that the estimate then put forward was too low rather than that the expenditure subsequently incurred on New Works was too high. The Commissioners of Northern Lighthouses indeed in a later communication to Lord Courtney's Committee expressly demurred to the estimate accepted by their spokesman for the time being, and witnesses for the Trinity
4974. House and the Irish Lights Commissioners have emphatically assured us that they
5710. never regarded the amounts mentioned on their behalf as thoroughly considered estimates by which they were willing to be bound. We think it would be very unwise to limit the amount of expenditure on New Works to any hard and fast sum, either generally or for each individual Board, because it is impossible accurately to foresee the demands that may arise in consequence of changes in the character of our Mercantile Marine, the introduction of new inventions, or the necessity of reconstructing or replacing existing works. All these causes have probably co-operated with an increasing revenue from the Light Dues to make the last ten years a period of higher expenditure than usual on New Works, but on the evidence before us, which we regret does not include evidence from the Advisory Committee, we are not prepared to say that the expenditure has been excessive.

35. Captain Wade, like Mr. Norman Hill, regarded the Mercantile Marine Act of 1898 as marking the beginning of a period of more lavish expenditure on
3681–2. New Works; but, far from condemning the change, he welcomed it as tending to
3692–6. increased efficiency. Nevertheless, he, too, criticises the Lighthouse Authorities for extravagance, basing his charge on what he considers the unnecessarily high cost of individual items. In particular he cited the case of the new lighthouse at Beachy Head, the lighthouses on Lundy Island, certain lighthouse-keepers' dwellings on the coast of Kerry, and the cost of lightvessels generally. In all these cases the Lighthouse Authorities concerned were, in our judgment, able to furnish a satisfactory reply to the charge.

36. On the whole, as regards the question of administrative extravagance, it cannot be said that the professed critics of the Lighthouse Authorities have given us much assistance in arriving at a conclusion. Their failure to establish their charges cannot, however, be held in itself to justify a favourable verdict on the general count, though, perhaps, it may fairly be taken as pointing to the absence of any gross and flagrant abuses in expenditure. We have certainly not come across any such abuses in the course of our investigation.

37. In examining the question whether reasonable regard is given to economy in the existing system, several possible lines of inquiry present themselves. We might compare the cost of the Lighthouse Service in the United Kingdom with that in other countries; we might compare the expenditure of each of the three Lighthouse Authorities with that of the other two; or, lastly, we might review the various items in the Lighthouse Accounts on their merits, and consider whether the expenditure upon them was justified.

38. It is not practicable, we think, to arrive at any definite results by means of a comparison between the respective costs of the Lighthouse Services at home and abroad. The circumstances are too diverse, and our information as to Lighthouse Administration in other countries is not sufficiently detailed.

39. Even as between the three Lighthouse Authorities of the United Kingdom the difficulty of making fruitful comparisons of expenditure is much greater than might at first sight appear. Sir Thomas Blomefield, the Assistant Secretary of the Finance Department of the Board of Trade, assured us that after doing his utmost to arrive at some basis of comparison, he had been forced to the conclusion that no general comparison was possible. The only way, he thought, to get a fair comparison, say, of the expenditure on Maintenance of Lighthouses or of Lightvessels, was to take single lighthouses or groups of lighthouses of the same type, and compare these, and similarly with lightvessels. He had prepared and put in five tables (which we print in the Appendix) showing the annual expenditure and percentage of cost of the three General Lighthouse Authorities for the last seven years under each of the heads appearing in the Annual Accounts of the General Lighthouse Fund, and also particulars of the number and character of the lighthouses, etc., maintained by the three Boards. But he gave us clear warning that comparisons based on the totals shown in these tables would, in his opinion, be useless and misleading; and after careful examination we feel constrained to agree with him. 3376, 3435. App. A. V.-IX. 3228. 3311–20. 3375–6.

We still hope that it may be found practicable to devise forms of accounts which would render trustworthy comparison easier, and we are certainly of opinion that some attempt in that direction should be made. But the difficulty is too deep seated to be altogether got rid of by any rearrangement of figures. It has its main sources partly in the different methods of administration adopted by the three Boards, and the consequent assignment (already noticed) of the cost of similar services to different headings; partly in the varying geographical features of the coast line of the three Kingdoms, and differences in the number, character, situation, and importance of the seamarks required; partly in the very different intervals at which special repairs may become necessary, whether for seamarks or for steamers. We have acted on Sir T. Blomefield's suggestion, and obtained from the several Lighthouse Authorities statements of the cost of approximately similar and similarly situated lighthouses and lightvessels, and also of individual steamships. This eliminates some of the obstacles to accurate comparison above mentioned, though not all. The figures thus obtained do not point to any marked distinction between the three Boards so far as economy is concerned.* The large expenditure on the Trinity House steam yacht "Irene" during the last few years is, however, worth noting. Much of this was explained by Captain Clarke as being due to specially heavy repairs recently executed; but even apart from these exceptional items, she is admittedly a costly vessel to maintain. 4975–83.

Head Office Expenses might be thought to present an easier field for strict comparison than the other headings. But here also difficulties arise from the different methods practised by the three Boards; moreover, the remuneration assigned to the Elder Brethren by Act of Parliament is a disturbing element requiring quite special consideration. It might fairly be anticipated that, the total expenditure of the Trinity House being much greater than that of either of the other Boards, its Head Office Expenses would amount to a somewhat smaller percentage of the whole. The actual percentages given in Sir T. Blomefield's Table are 8 for the Trinity House, 7·4 for the Scottish, and 6·6 for the Irish Board. If, however, the Elder Brethren gave their services for nothing, like the Scottish and Irish Commissioners, the percentage for Trinity House would be reduced to 5·6. But neither the first of these figures nor the last could safely be used as a basis of comparison between the Trinity House and the other two Boards without further qualification. For instance, the Elder Brethren include in their duties much direct superintendence which under the Scottish and Irish systems is left to paid subordinates; and again the so-called "district superintendents" of the Scottish Board, whose business it is to carry out ordinary repairs, are counted as belonging to the Head Office Establishment, although their work is of a kind which would be charged to other headings in the accounts of the Trinity House or of the Commissioners of Irish Lights. No comparison would be of value which failed to take such differences into account; and, on the other hand, the difficulty of assigning its proper weight to each factor is apt to make even the most careful comparison inconclusive. App. A. VI.

40. There remains the third line of inquiry, that which consists in taking the items of expenditure in the Lighthouse Accounts on their merits, and considering whether the money has been spent to the best advantage.

To the question in the form thus given to it we cannot pretend to offer more than an incomplete answer. No doubt, with respect to some very important elements

* As regards "Maintenance of Lighthouses," however, see footnote to Paragraph 41.

in the expenditure, there is no great difficulty in forming a definite judgment. The salaries and wages of the personnel in the Lighthouse Service are fixed either by Order in Council, on the advice of the Board of Trade, or by the Board of Trade direct. We are clearly of opinion that the rates of pay are not unduly high for the services rendered.

Pensions are payable in accordance with the ordinary Civil Service Regulations. The Irish Lights Commissioners usually exercise the option of retiring their lighthouse keepers at 60 instead of 65. This practice may possibly be questioned; but apart from it no saving is to be expected in the expenditure on pensions.

As regards New Works, stores, and other supplies, the Lighthouse Authorities are in general obliged to invite tenders, all reasonable precautions seem to be taken, and general control is exercised by the Board of Trade. Given that the New Works are suitably designed, and are required for the effective lighting of the coast, and that the stores and other supplies are not excessive, we have no reason to suppose that there is much room for further economy in these directions.

The above considerations appear to dispose of the charge of extravagance in connection with the greater part of the expenditure on the Lighthouse Service. On the other hand, when we ask whether it might not be possible by better organisation to reduce the personnel, and whether the different methods adopted by the different Authorities for the carrying out of repairs, for the relief of lighthouses and lightvessels, for the distribution of stores, and for the inspection and supervision of the seamarks under their charge, are really the best and most economical that can be devised to meet the circumstance of each case, we come to questions of much greater difficulty—respecting which even experts with full knowledge of the facts will doubtless differ. Sir T. Blomefield, on behalf of the Board of Trade, expressed
334-52. the opinion that there was no undue extravagance on the part of the Lighthouse
345 Authorities, and although it may be said that the Board of Trade could hardly support such a charge without accusing themselves of defective control, yet, on the other hand, it must be remembered that they bring wide financial experience to bear on the question, and should have better opportunities than anyone else of forming a correct judgment upon it.

41. On the whole the conclusion we have come to is that the kind of criticisms to which the Lighthouse Authorities may be open on the score of defective economy in administration are such as would probably apply to any public body undertaking similar duties. There was certainly no clear evidence of any specific extravagance which was either material or continuous; and we are disposed to believe that the three Boards are alive to the importance of economy, and sincerely anxious to study it in every way, though in some cases long established custom and routine may constitute an obstacle and danger to rigid economy. If any distinction is to be made between the different Authorities in this matter we think the superiority lies with the Commissioners of Northern Lighthouses. The Trinity House with a double, and sometimes even a treble, line of dangers to guard are no doubt confronted with administrative problems of special difficulty; but it is open to question whether from the point of view of economy their methods and organisation are as perfect as they might be. The besetting sin of all public institutions—especially if they have a long history and tradition behind them—which carry on their work sheltered from the stress of competition and relieved of the necessity of showing a profit, is to acquiesce in an existing order simply because it exists and because to change it would require thought and trouble and perhaps involve unpleasantness. It is certain that if this danger is to be adequately counteracted both the Trinity House and the other Lighthouse Authorities must not be content to practise economy in details, but must make it their duty from time to time to review, and if need be to revise, the more general lines upon which their administrative systems are framed.*

Complaints of Inefficiency.

3474–5. 42. We are glad to be able to record a fairly general agreement among the
3496–8. witnesses who appeared before us that the coasts of the United Kingdom are well

* An exhaustive analysis, prepared by Admiral Henderson and appended to this Report, of the detailed particulars furnished by each General Lighthouse Authority respecting the lighthouses under its charge yields results which certainly appear to require the most serious examination alike by the Trinity House and the Commissioners of Irish Lights of their administrative system, services and appliances. (See App. C. III.)

and efficiently lighted—at least as well and efficiently lighted as those of any other country. We believe this praise is deserved, subject, however, to a qualifying remark in which we have no doubt the Lighthouse Authorities themselves would readily concur. When a service is spoken of as efficient, a standard is implied by which the efficiency is measured. Now, in the case of the Lighthouse service the standard must be regarded as essentially progressive and this in various ways. For instance, the gradual displacement of sailing-vessels by steamers, and the increasing speed of the latter, has rendered more powerful lights necessary where less powerful ones were formerly adequate. Then again, new inventions and improved methods for marking the dangers of the coast are continually being introduced, and a lighthouse service would soon cease to be efficient which neglected to take count of them. Lastly, the most frequented trade routes must naturally be the first to engage the attention of the Lighthouse Authorities, but as the needs of these are provided for, it becomes incumbent upon them to extend their activities to the less frequented parts also. When, therefore, we say that the coasts of the United Kingdom are efficiently lighted, we do not mean that there is not ample room for further advance, but we recognise that the advance must be gradual, and in the meanwhile credit the Lighthouse Authorities with being reasonably abreast of the times. 3572. 3867. 4189–91.

43. A few complaints of inefficient or insufficient lighting have been brought before us, but most of these either referred to deficiencies in the past which have since been made good, or to proposals for New Works which are now actually under consideration by the Lighthouse Authorities. We may refer in this connection to the case of the fog-signal on Mizen Head which has been the subject of acute differences between the Irish Lights Commissioners and the Advisory Committee. The Irish Lights Commissioners had always maintained that it was a mistake to put a siren fog-signal at Mizen Head, an opinion which they still hold. The Elder Brethren originally supported the Irish Board, but the shipowners pressed for the fog-signal so much that first of all the Trinity House gave way, and, the influence of the Board of Trade having been exercised in the same direction, the Irish Board ultimately yielded. They urged, however, that if a signal was erected at Mizen Head a powerful light should accompany it, but this was not sanctioned, and a fog-signal alone is now under construction. This incident has been made the subject of severe attack on the Irish Lights Commissioners by more than one witness; but we are unable to see in it anything more than one of those cases of difference of opinion which will inevitably arise from time to time even among persons well qualified to form a judgment on some particular matter in dispute. 3014–7. 4202–6. 5207–8.

Our attention was also called to the alleged backwardness of the Trinity House in experimenting with or adopting the new system of submarine signalling now in partial use in Canada and the United States of America. The evidence, however, which we received on this subject, as well as the correspondence relating to it, went to show that the Trinity House were fully aware of the possibilities of this invention and had asked to be allowed to fit several of their lightvessels with submarine bells at an estimated cost of £1,000. The proposal to expend money for this purpose was objected to by the Advisory Committee and ultimately withdrawn. If the Trinity House are open to criticism in this connection, it would seem to be for not pressing their proposal more strongly in face of the opposition offered to it. We understand that the proposal has since been brought forward again and sanctioned. 5039.

While dealing with the general question of efficiency we must not omit to mention that in their relations with the Board of Trade the Irish Lights Commissioners seem to have been distinctly less fortunate than either the Trinity House or the Commissioners of Northern Lighthouses. A paper was put in by Mr. Pelham drawing attention to a number of specific instances in the last three years of what may perhaps best be described as unbusinesslike methods on the part of the Irish Board. These instances, taken separately, do not appear to be of a very serious character, but the explanations of the Commissioners were not in every case as clear as they might have been, and we are inclined to the opinion that the work of the Irish Board has occasionally shown signs of being less systematic, though perhaps in important matters not less efficient, than that of the two other Authorities. The Board of Trade also complain that they cannot induce the Irish Lights Commissioners to send in an Annual Report respecting the Local Lights under their jurisdiction, as is done by the other Boards. Instead of an Annual Report they send in a separate Report on each occasion when a local inspection happens to be made, which certainly App. A IV. 194.

appears a less practical and business-like procedure We are confident that the Commissioners of Irish Lights and their new Secretary, now that attention has been prominently called to these matters, will make every endeavour to meet the wishes of the Board of Trade, and to avoid all reasonable ground of complaint in future.

44. We have now passed in review the more important of the shortcomings alleged against the administrative work of the Lighthouse Authorities, and at this point it may be convenient to add a few words upon certain representations of a miscellaneous character that have been offered more by way of suggestion than of criticism, in order that we may dispense with the necessity of dealing with them later on.

Miscellaneous Suggestions.

Notices to Mariners.

3477. 45. Captain Tizard, Assistant Hydrographer to the Royal Navy, who spoke on behalf of the Admiralty, expressed the opinion that the issue of Notices to Mariners by the three General Lighthouse Authorities might with advantage cease.

In some cases there was not sufficient information in them to make them as useful to mariners as they should be, and as the Admiralty itself issued similar notices, as well as the Board of Trade, an unnecessary duplication of functions would thus be avoided.

We may observe with regard to this question (the whole history of which is given at Q. 5415) :—

5415. 5417. 3479. (*a*) That there was a Departmental Committee specially appointed to consider it in 1887, which recommended the introduction of the methods now existing.

(*b*) That according to Captain Tizard's own admission the notices issued by the General Lighthouse Authorities are received earlier by the mariners concerned than are those issued by the Admiralty.

46. It is clear that in the issue of such notices a recognised system, clearly defined responsibility, and quick service are matters of the first importance, and we think it would be advisable that the various Authorities concerned should confer with a view to an improvement and consolidation in the existing practice.

Captain Tizard also suggests that fuller and earlier information might be sent by the Lighthouse Authorities to the Admiralty ; but the Admiralty do not appear to have made any representations to that effect to the Lighthouse Authorities themselves.

Lloyd's Signal Stations.

47. At the present time, as the result of a joint arrangement between the Committee of Lloyd's and the General Lighthouse Authorities, signals for Lloyd's are taken in by the lightkeepers at certain lighthouses and are then transmitted 3574. to Lloyd's. In view, however, of the increasing necessity for more distant signal stations, for which in many cases outlying lighthouses and lightvessels would afford the only available positions, the Committee are anxious that privileges which they now receive *ex gratiâ* from the Lighthouse Authorities should be more definitely secured to them by means of legislation or otherwise. What they have in view is that the lightkeepers, etc., should be bound to perform certain specific duties, secondary, of course, to their lighthouse duties, with regard to the transmission of signals.

48. We have carefully considered this question, and though we fully recognise the importance of Lloyd's system of intelligence, which is of the greatest value to the whole commercial world, we hesitate to recommend any immediate action in view of the facts :—

3525 *et seq.* (*a*) that the Admiralty are by no means clear that the use of lighthouses as signal-stations might not lead to difficulties in time of war.

3581–2. (*b*) that the existing arrangements appear to work fairly satisfactorily.

(*c*) that the imposition by statute of duties not connected with the lighting of the coast on the staff paid from the General Lighthouse Fund does not appear advisable.

Blackwall Works.

49. Some suggestions have been made as to the advantage of removing the Blackwall Works to another locality. The question must of necessity be mainly one for experts, and we were informed by Trinity House that they went into it 2446. in considerable detail some years ago and came to the conclusion that no economy would be effected by such a move. We understand, however, that the Board of Trade are themselves prepared to examine into the matter afresh, and, if it appears desirable, to authorise the measures necessary.

Lights of Local Utility outside the Jurisdiction of any Local Lighting Authority.

50. The Lighthouse powers of the General Lighthouse Authorities clearly extend to all areas and coast lines round the United Kingdom, except such as are included within the limits of jurisdiction of any Local Lighthouse Authority. Some doubt, however, seems to exist whether the General Lighthouse Authorities are justified in spending money on the erection of seamarks which, however advantageous locally, would be of little or no benefit to "passing trade." Different views have prevailed on this subject at different times, but we agree with the opinion expressed by the Board of Trade, and concurred in both by the Trinity House and by the 54. Commissioners of Northern Lighthouses, that there is nothing in the Merchant 4993–4. Shipping Acts to confine the General Lighthouse Authorities to expenditure for 5507–12. the benefit of passing trade, or to prevent them from erecting lights mainly, or even exclusively, of local utility. On the other hand, it is not disputed that the interests of general navigation may properly claim precedence over local interests.

The question has been complicated by the change made in 1898 in the system of levying Light Dues, in consequence of which the dues are no longer levied in respect of the particular lights passed, but are calculated on the number of voyages completed within the year by the vessel paying the dues. One of the results of this change has been that lights of local utility maintained by a General Lighthouse Authority, while remaining a charge upon the General Lighthouse Fund, have ceased to bring in any compensating revenue.

51. We think that as regards proposals for new lights intended primarily to meet the needs of particular localities or interests, it would be reasonable and fair to make their erection conditional on a contribution from the localities or interests concerned. This has been done in the case of the Strumble Head Light. The light was asked for by the Great Western Railway Company, in connection with their 5829. harbour at Fishguard, though it was shown that passing trade also would benefit by it. The Railway Company were invited to contribute, which they eventually consented to do, to the extent of £2,000, out of an estimate of £12,000. In areas under the Congested Districts Board for Scotland the same principle has been carried still further, for there are a good many small lights in these parts, erected 1455. and maintained wholly at the Board's expense, but served by the Commissioners of Northern Lighthouses. It has been suggested to us that fishing vessels, which are at present exempt from the payment of Light Dues, should be brought under contribution, especially the steam fishing vessels now in use. As regards the latter, the suggestion is put forward on grounds that scarcely come within the scope of our Inquiry, but if hereafter proposals should be entertained for the erection, 5515. by a General Lighthouse Authority, of lights in the interests of local fisheries, a contribution to be levied in this form may be thought worthy of consideration.

The Port of London.

52. Our attention has been directed to the favoured position in which the new mode of levying Light Dues has placed certain ports which, not possessing any Local Lighthouse Authority of their own, continue to be lighted by a General Lighthouse Authority at the expense of the General Lighthouse Fund. By far the most important of these is the Port of London, at present lighted by the Trinity House, at an estimated cost of over £40,000 annually. There is no essential 1945. distinction between the case of these ports and that of the class of local lights mentioned in the last paragraph, the principal difference (apart from the magnitude of the public interests involved) consisting in the absence of any *prima facie* reason why the ports in question should not be placed, like the vast majority of ports of any consequence in the United Kingdom, under Local Port Authorities, and lighted out of funds raised by means of local dues.

53. There certainly seems to be an inequality in the present arrangement. It is not, however, an inequality which could be altered by any administrative action of the Lighthouse Authorities, and since the question, as it affects the General Lighthouse Fund, is of no great practical importance except as regards the Port of London, and a new Bill for the creation of a Port Authority for London is now under consideration, this brief reference to it may perhaps be deemed sufficient.

(b) Constitutional Criticisms.

54. We next proceed to consider what we have called *constitutional* criticisms, under which general description we include not only criticisms directed against the constitution of the Lighthouse Authorities themselves, but also criticisms bearing on the relations of Trinity House to the Scottish and Irish Boards, and of the Board of Trade and the Advisory Committee to all three Authorities.

Constitution of the Lighthouse Authorities.

55. Each Lighthouse Authority has its own peculiar constitution, and the points to which criticism has been applied vary to some extent accordingly.

In the case of Trinity House it has been objected that the Elder Brethren are a self-electing body, and that no provision is made, or under the existing charter can be made, to pension off those of them who are of advanced age.

Against the constitution of the Scottish Board it is urged that a body consisting of sheriffs and municipal representatives may be, and probably will be, wholly without expert nautical knowledge, and is unsuited to deal with nautical matters. It is also objected that its numbers are unduly large, and that the majority of members habitually fail to attend.

The Commissioners of Irish Lights share with the Trinity House the criticism that they are, for practical purposes, a self-electing body, and with the Scottish Board the criticism that save by accident they may be wholly destitute of any expert element. Complaint is also made, as in the case of the Scottish Board, that they are too numerous, and that many of them attend but seldom. Objection was further taken to the five *ex officio* members being all Dublin men, and it was suggested that Harbour Authorities in other parts of Ireland ought to be provided with representatives.

Finally, the absence of any provision for the representation of shipowners was a common ground of criticism against all three Boards.

56. If the problem before us were the construction for the first time of a system of Lighthouse Administration for the United Kingdom, it certainly would not occur to anyone to propose the creation of administrative bodies on the lines of the Trinity House, the Commissioners of Northern Lighthouses, or the Commissioners of Irish Lights. So much will be generally admitted, and is indeed not denied by the existing Authorities themselves. If therefore the discharge by those Authorities of the functions committed to them had been seriously defective or inefficient, it would be impossible to resist the conclusion that a drastic reform of the whole system was called for. It would probably be our duty to recommend that the Scottish and Irish Boards should be dissolved, that the Trinity House should be deprived of its Lighthouse powers, and that the lighting of our coasts should be entrusted to an Authority of a wholly different nature.

It will have been seen, however, from what has preceded, that in our judgment the existing Authorities have, on the whole, done their work well; and though the process of evolution has not produced perfect administrative machinery, and consequently the work of the Lighthouse Authorities is liable to criticism for defects appertaining to their historical constitution, we should hesitate to advise the sweeping away of a system which, however anomalous according to modern ideas, has yet answered its purpose satisfactorily, unless it could be shown that some distinct practical advantage was likely to ensue.

57. Some of the Royal Commissions and Committees that have preceded us in the past have recommended the substitution of a Central Authority in place of the three Boards, and similar suggestions have been made by several witnesses in the course of the present Inquiry. These suggestions have taken one of three forms. One proposal was that the Trinity House, with or without an amended constitution, should be the new Central Authority. Mr. Norman Hill considered that if the Light Dues continued to be levied as at present, the Lighthouse Administration should be

entrusted to a Committee elected by the Shipowners. But the plan which found most support was that of transferring it to a State Department, preferably to the Board of Trade.

58. The proposal to constitute the Trinity House sole Lighthouse Authority, apart from any other objections which might be urged against it, would not remove the very anomaly which is one of the main grounds of criticism, namely, the administration of the Lighthouse Fund by a self-electing body. It might indeed be possible to amend the constitution of the Trinity House, but hardly to the extent that would be required in order to satisfy this criticism without destroying its corporate character altogether.

59. On the other hand to entrust the lighting of the coasts to a Committee of Shipowners would in our opinion be a very unwise proceeding. The tendency of such a body would almost certainly be in the direction of leaving those parts of the coast which lie away from the most frequented trade routes insufficiently provided with seamarks. It may be doubted indeed whether this proposal was put forward as one meant to be entertained seriously, or was intended as anything more than a declaration of the principle stoutly upheld on the part of the shipowners, that so long as the cost of Lighthouse Administration is not a charge on the Exchequer, the management of the Lighthouse Fund should be in the hands of those who pay the dues. The principle in question, although claiming to rest upon the maxim that taxation and representation should go together is, in reality, more plausible than sound. If accepted it would appear to involve the inclusion of foreign shipowners on any such Committee, inasmuch as under the existing system some £150,000 or 30 per cent. of the entire cost of the lighting of the coasts of the United Kingdom is estimated as being paid by foreign vessels. We are inclined, however, to agree with the opinion expressed by Lord Courtney's Committee, that the Light Dues paid by Merchant Shipping do not in the long run come out of the pockets of the shipowners, but "are ultimately a tax on consumers of commodities carried in the Merchant Navy." Even if this opinion is mistaken the contention advanced on behalf of the shipowners seems of very doubtful validity. The old system of maintaining roads by means of tolls presents a fairly close analogy. We are not aware that it was ever suggested that the expenditure of the money received at the turnpikes ought to be entrusted to a committee of the payers of tolls. Harbour Boards again derive their revenue from the payment of dues, but it has never been held that this gives the payers of dues a claim to control the management, although it may be reasonable and expedient to give them some share of representation. 1785.

60. In any case we are not prepared to recommend either of the proposals above mentioned on their merits, and we are convinced that if the present system of Lighthouse Administration is to be abolished, management by a State Department in some form or other would be the only practicable alternative.

If such a change were to be carried out, the simplest and easiest plan would be to transfer the powers and duties of the existing Lighthouse Authorities to the Board of Trade; but it might equally well be effected by transferring them to Commissioners appointed by the Government, and constituting an additional Government Department created for the purpose. Would a new system on these lines promise a clear balance of advantage as compared with the old, over and above the purely theoretical satisfaction of bringing the machinery of administration into more logical agreement with modern tendencies?

61. On this subject we think the evidence given by Mr. Llewellyn Smith, the Permanent Secretary to the Board of Trade, deserves careful attention. With reference to the proposal to make the Board of Trade the sole Lighthouse Authority, Mr. Llewellyn Smith says: "If Parliament put the duties upon us we would do our best to discharge them, but I think the feeling of the Board of Trade is that the ordinary departmental organisation is better suited for the purposes of general control than for the purpose of the detailed management of a large business of this kind. Of course, there would be no great difficulty, if desired, in constituting some special sub-department or special board under the control of the Board of Trade which should undertake this work, but the Board of Trade have great doubts as to whether an arrangement of that kind is a desirable one. The Board of Trade . . . . . is already an overworked Department, on which new duties are continually being thrown by Parliament, and however much we decentralised the administration by the constitution of a special sub-department, the ultimate responsibility would have to be with the heads of the Board of Trade. I think that we should view with 6059.

something like dismay the prospect of having to add to our very multifarious functions the detailed management of the Lighthouse system. It is comparatively easy to set up the necessary machinery, but the real difficulty—which I do not see how we could quite satisfactorily overcome—is the growing congestion at the top of the Department. We could not get rid of the ultimate responsibility."

Pressed to say whether he thought a Government Department would, on the whole, be more economical or less economical than the existing Authorities, Mr.
6062. Llewellyn Smith replied that it was a somewhat delicate matter on which to express an opinion, but he added, "It must be obvious to the Commission that in a case of this kind, where the potential demands for lighting all round the coast are practically inexhaustible, there being scarcely a part of the coast where some sort of case could not be made out for some advantage resulting from an extension of lighting, it would be difficult always to maintain economy."—There was always the difficulty arising from political pressure on a Government by its supporters.—"Of course we should endeavour to resist such pressure, but I do not know how far we should
6064. always be successful."

Asked whether the existing Authorities would be more likely to deal fairly with distant interests, such as those of the coasts of Northern Scotland, than a Central Authority, his answer was: "I think you might pay very dearly if you weakened
6065. local interest in these matters . . . I do think that if the Board of Trade or some other Central Department were entrusted with this work, we should have somehow to decentralise, we should have to have some local sub-departments in Scotland and Ireland." Again, in reply to a later question, he added: "It seems
6067. to me that a very strong objection is likely to be raised, both in Scotland and in Ireland to the abolition of the separate administrations, and subject to some provisions for securing some degree of uniformity, it seems desirable in itself that the actual current administration should be to a greater or less extent decentralised. There might, and probably would be, some economy in having one central staff of officials, but I am not sure that that would not be too dearly bought by the loss of local knowledge, and the weakening of local interest. I am quite sure that the proposal would be pretty strongly opposed."

62. We cannot but attach great weight to opinions thus strongly expressed by so competent a witness. To transfer the Lighthouse Administration to a Government Department is a perfectly practicable course, and might carry with it certain advantages; but we agree with Mr. Llewellyn Smith, that it would also have its accompanying drawbacks, and in existing circumstances we do not recommend it.

We say "in existing circumstances," because in the event of the Light Dues being abolished, and the cost of lighting the coast becoming a charge on the National Exchequer, it is obvious that fresh considerations would arise. The question from what source the expenses of Lighthouse Administration should be defrayed is not included in our Reference, and we neither express any opinion upon it nor attempt a more precise examination of its bearing upon the matters into which we have been instructed to inquire. We content ourselves with recording the impression left on our minds that the opinions held on the question of the Light Dues by many of the witnesses have largely coloured the views expressd by them on the subject of the Lighthouse system as now administered; and that if this question could be definitely cleared up in one sense or the other, the work of the existing Lighthouse Authorities would perhaps be more impartially judged than it is at present.

63. It remains to be considered whether the criticisms directed against the constitutions of the three Boards respectively cannot, in some measure, be met by changes of a minor character. Certain of these criticisms are eminently reasonable, and point to defects for which it ought to be comparatively easy to find a remedy. The impossibility, under the existing charter, of retiring Elder Brethren on pension after they reach an age limit is an evident source of weakness at the Trinity House. The fact that no security exists for the presence of an expert nautical element on either the Scottish or the Irish Board is an obvious defect in the constitution of each of these bodies.

64. Our recommendations include proposals for remedying both of these shortcomings, as will be seen presently. The former we suggest may be met by a modification in the charter of the Trinity House; the second by assigning one Elder Brother to each of the other two Boards in the capacity of assessor. This latter proposal, if carried out, will, we think, have the further advantage of promoting an interchange of ideas between all three Authorities to their common benefit.

65. The question of strengthening the existing Boards by adding to each a limited number of representatives of the shipowners is a more difficult one. There is a good deal to be said in favour of the plan, and it has the support of the Board of Trade. Moreover, both the Trinity House and the Commissioners of Northern Lighthouses have stated that they would not oppose it, if its adoption were considered desirable. On the other hand it is strongly objected to by the Commissioners of Irish Lights, who urge that the forced introduction of an element of this kind would be destructive of that unity and comradeship which is so important a factor in the smooth working of an unpaid Board. Nor do the shipowners themselves appear to be anxious for representation on the Lighthouse Authorities. At all events Mr. Norman Hill, on behalf of the Liverpool Steamship Owners' Association, said he did "not think it would be possible to produce a Board which would work harmoniously by adding a few representatives of payers of dues to the existing Boards, to be in a hopeless minority on those Boards"; and he roundly declared that he did not believe the shipowners would accept such an offer under any circumstances. Notwithstanding these expressions of opinion, if we could be confident that representatives nominated by the shipowners would attend the Boards, in Mr. Llewellyn Smith's words, "in order to help forward the work, and not merely to represent their class," we should be inclined to say that the experiment ought to be tried. But with the shipowners in their present frame of mind, and taking into account that an Act of Parliament would be necessary to give effect to the proposal, we do not feel disposed to press it, especially as we hope that some of the advantages which might be expected to result will be secured by the scheme which is described later on for the re-modelling of the Advisory Committee.

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66. We recognise that there is some foundation for the complaint that the Scottish and Irish Commissioners are unnecessarily numerous, and that many of them hardly ever attend the meetings; but as no practical inconvenience has been found to arise, it does not seem imperative to provide a remedy. Indeed the undue size of the Boards is in a measure neutralised by the paucity of constant attendants; and the members who do constantly attend in an unpaid body are those who take a genuine interest and pleasure in the work.

67. We received evidence on behalf of the Conference of Harbour Authorities in Ireland in favour of giving the various Harbour Boards some representation on the Board of Irish Lights, which was characterised as a "Dublin Board." The examination of these witnesses showed that they had hardly thought out their proposals with sufficient care or knowledge, and that they were by no means unanimous as to the change which they desired to see introduced into the existing system. The addition of representatives elected by Harbour Boards to the General Lighthouse Authority for Ireland was strongly opposed, both by Sir William Watson on behalf of the Irish Lights Commissioners, and by Alderman Lawther, of Belfast, mainly on the ground that such representatives would inevitably be the mouthpieces of sectional interests. The same view was also expressed by Mr. Llewellyn Smith. We think there is force in this objection, and the proposal is not one we are able to support.

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No doubt it is anomalous that Dublin should contribute five *ex officio* members to the General Lighthouse Board when no other seaport town in Ireland sends any. But if it be considered worth while to remove this anomaly, we think the better way would be to eliminate the Dublin representatives (who seldom take an active part in the work of the Board) rather than increase the number of the Commissioners by adding to them representatives of other localities.

The Board of Trade.

68. Possibly the Terms of our Reference do not require us to consider the part which the Board of Trade plays in the system of Lighthouse Administration, or to inquire into the manner in which the financial control which belongs to it is exercised. As, however, that control has been criticised on the one hand for being inefficient and in fact amounting to no more than a power of audit, and on the other for being so rigidly exercised as seriously to diminish the responsibility of the Lighthouse Authorities in the ordinary work of administration, we think it right to say that neither of these allegations is sustained by the evidence. The Lighthouse Authorities themselves are unanimous in regarding the financial control of the Board of Trade as

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a real control, and equally unanimous in declaring that they are helped and not hindered by it. To relieve the Board of Trade of its present functions of supervision and control over the Lighthouse Authorities and transfer them to a new *ad hoc* body is not a course we are prepared to recommend.

The Advisory Committee.

69. The relations of the Advisory Committee to the Lighthouse Authorities, and its place in the general system require to be carefully considered. Unfortunately, as we have already had occasion to indicate, we have not been favoured with any evidence from the Advisory Committee themselves, as they were of opinion that the Terms of Reference were not sufficiently comprehensive to enable them usefully to appear as witnesses. On the other hand, we have had an opportunity of reading the verbatim reports of the Conferences in which they have taken part since their institution, and we have also heard testimony from various quarters bearing on the extent and character of their contributions to the cause of sound administration.

5448 On this subject great divergence of opinion appears to exist. The Commissioners of Northern Lighthouses are frankly hostile to the Advisory Committee, and would like to see it abolished. So far as Scotland is concerned they consider that the Annual Conferences have contributed nothing either to the public service or to the despatch of business, and that the Advisory Committee has put forward no useful suggestions.

4948 A more favourable view was expressed on behalf of the Trinity House by Sir George Vyvyan, although he too describes the attitude of the Committee as one of systematic opposition to proposed expenditure on New Works, based less on the merits of each case than on the feeling of the shipowners that the money comes out 5688 of their pockets. Sir William Watson, speaking for the Commissioners of Irish Lights, took a similar view; on the whole he thought that the Advisory Committee had worked well, and had been of service; but he considered that its members were too much influenced by local and special interests, and too anxious to keep down expenditure.

The Advisory Committee was called into existence primarily for the purpose of advising the Board of Trade before sanction is given to proposals for New Works. We should be inclined, therefore, to attach greater importance to the opinion which the Board of Trade have formed of its practical utility than to the views of the Lighthouse Authorities, with whom the duty of making proposals for 6088 New Works lies. Mr. Llewellyn Smith had no doubt that the Board of Trade had derived advantage from the appointment of the Committee. He says: "I think we do derive value from its advice, and that might be expected to increase. Of course, there is no doubt that the benefit would be greater in some ways if the shipowners did not happen to be so much engrossed with their campaign against the payment of the Light Dues. That colours, to some extent, the proceedings, but that can scarcely be avoided at present, and I would say decidedly that we do derive benefit from the Advisory Committee."

70. Reviewing all the evidence available, we believe these remarks of Mr. Llewellyn Smith are a fair summing up of the case. When the Advisory Committee was first created there was evidently a good deal of friction between them and the Lighthouse Authorities. Since then the friction has greatly diminished, and relations have become less strained; but the Committee are still dominated by the feeling that they are there as watch dogs for the payers of dues, and their instinct is to resist expenditure rather than to consider whether money may be wisely spent. The Board of Trade can, and do, discount this attitude, and they have repeatedly overruled the objections of the Advisory Committee; on the other hand they value the Committee, because by its means they are put in possession of the views held by shipowners and others represented on it, and they feel it to be advantageous that these views should have a hearing before New Works of a costly character are undertaken.

71. While, however, we agree in regarding it as undoubtedly desirable that provision should be made for giving those who are now represented on the Advisory Committee a voice in expenditure of this kind, we very much question whether the plan adopted by Lord Ritchie is the best that could be devised. It appears to us not only cumbrous, but calculated to accentuate those very defects in the Advisory Committee which both the Lighthouse Authorities and the Board of Trade have pointed out.

The stages in the procedure with respect to New Works are as follows:

1. The General Lighthouse Authorities submit rough estimates to the Board of Trade, in the autumn of each year, of the New Works proposed to be constructed during the next financial year, commencing April 1st. 14.

2. These estimates are printed and discussed at a preliminary Conference held in December between the Board of Trade and the three Lighthouse Authorities.

3. The revised estimates are sent to the Advisory Committee for their consideration.

4. A second Conference takes place in January or February, in which the Board of Trade, the Lighthouse Authorities, and the Advisory Committee all take part. The proceedings at this Conference are thus described by Mr. Pelham, who has been present at all of them. "At this latter Conference," he says, "each item is dealt with separately, and the reasons which have led to the necessity for the work are explained by representatives of the General Lighthouse Authorities. In the case of works proposed by the Scotch or Irish Boards, the opinion of the Trinity House is taken. The Advisory Committee are invited to express their opinion as to the desirability of the New Works proposed by any of the Lighthouse Authorities. They are also asked if they wish to suggest any new lighthouses or buoys. Very often the Nautical Adviser of the Board of Trade is asked by the President to give his views. In some cases the President gives his decision at the time, but in other cases the decision is reserved by the President for further consideration, and further information is obtained and submitted to the Advisory Committee, who submit their views by letter." 14a.

The procedure above described certainly seems a round-about way of arriving at the desired result, and one likely to lead to a very unnecessary multiplication of correspondence. But we think it has other and still graver defects. In the first place its inevitable tendency must be to throw the Lighthouse Authorities on the one side, and the Advisory Committee on the other, into hostile camps, with the Board of Trade acting in the difficult position of umpire between them. In the second place, and in close connection with this first defect, the procedure does not appear to us well adapted for securing a really thorough and impartial discussion of the merits of the various proposals that are put forward. The Lighthouse Authorities and the Advisory Committee meet once in the year at opposite sides of a table. The Advisory Committee have been made acquainted beforehand with the proposals of the Lighthouse Authorities, but not with the reasons on which those proposals are grounded. They come with a strong bias on the side of resisting expenditure, and perhaps even definitely committed to opposition to particular proposals, and they hear what the Lighthouse Authorities have to say in support of those proposals for the first time, and practically without any opportunity for further consideration of them in private. If the Advisory Committee have themselves any suggestions to put forward for new seamarks (not a very common case), it is impossible for the Conference to discuss these adequately on the spur of the moment, and they have necessarily to be postponed to the following year.

72. We think the most effective remedy for the defects to which we have called attention would be found in a complete remodelling of the Advisory Committee, by placing on it, in addition to the elements which it now contains, representatives of the three Lighthouse Authorities and of the Board of Trade. We have accordingly included a scheme of this nature in our recommendations. With an Advisory Committee thus strengthened it might also be possible and desirable somewhat to enlarge its functions.

It may be of interest to point out that a scheme on the lines indicated recalls a more or less similar recommendation made by Lord Courtney's Committee, but never carried out. "From the evidence brought before us," say Lord Courtney's Committee (Sec. 71), "we unanimously recommend the formation of a small Committee containing representatives, possessing, so far as possible, nautical knowledge, of the Trinity House, the Scotch Board, and the Irish Board, which

should be summoned at least once a year to advise the Board of Trade upon the advisability of all New Works, whether in respect of lighthouses, lightships, steamers, buoys, or signals, together with all renewals, alterations and important repairs." It seems probable, though the words are not quite free from ambiguity, that Lord Courtney's Committee meant to confine the members of the proposed Committee to representatives of the three Lighthouse Authorities. This recommendation may have suggested to Lord Ritchie his own very different plan of an Advisory Committee consisting wholly of representatives of shipowners, underwriters, and merchants. Our own scheme would be in some sort a combination of the two.

Trinity House Control over the Scottish and Irish Commissioners.

73. As has been already stated, the Trinity House, under the Merchant Shipping Act, 1854, are invested with a statutory control over the other two General Lighthouse Authorities in respect of the exercise of their "Lighthouse powers." Some objections were urged against this control, principally by the Northern Lighthouse Commissioners. The Irish Lights Commissioners were, on the whole, satisfied with it, though they would have preferred a return to the practice followed
3092 some years ago, when the Trinity House concerned themselves only with the character and utility of proposed new lights instead of insisting on a detailed financial examination into the cost of erection and maintenance. The Trinity House
5094 themselves were of the opinion that the control was salutary, in default of any nautical element on the other two Boards, but they professed themselves not
5081, 5094. unwilling to forego it should this latter modification be introduced. The Board of Trade did not in practice attach very much importance to the control, as such. In the last resort an appeal always lay to themselves, so that in fact the position of the Trinity House in this connection was rather advisory than one of real power. On the other hand the Board set great value upon the expert advice which they received from the Trinity House. So long as full opportunity of calling for this was reserved to them, they were not so much concerned about the form in which it was furnished.

The grievances of the Northern Lighthouse Commissioners have apparently arisen more from the way in which the Trinity House control has latterly been exercised, and from a somewhat detailed supervision that has been pressed, perhaps at times needlessly, than from any inherent objection to the principle itself. At the same time they point out that it is somewhat anomalous for one spending department to have financial control, however slight, over other claimants on the same fund.

That the tendency has been, of recent years, to make the control more close
3092. 5086. and more searching than it formerly was is evident from the remarks of the Irish Lights Commissioners. This greater stringency may have had its justification. But we are of opinion that the principal objects aimed at—namely, uniformity and an assurance that no new seamark shall be set up without full consideration from nautical experts—can be equally well secured without offending the susceptibilities of either of the junior Lighthouse Authorities, and with less complication of administrative machinery.

74. The addition of a Trinity House Elder Brother to the Scottish and Irish Boards, which is one of our recommendations, will at once supply that expert element
5094. which, in Sir George Vyvyan's opinion, would justify the elimination of the Trinity House control, and also help to secure such uniformity as the interests of the Lighthouse Service as a whole demand.

But beside this, if our suggestions for a remodelled Advisory Committee are carried out, all proposals for New Works, no matter from what source they may come, will have to be submitted to this Committee, whose conclusions the decision of the Board of Trade would, we anticipate, in the large majority of cases follow.

With these two safeguards, we think the statutory control of Trinity House over the Scottish and Irish Boards might either be abolished, or at least cease to be more than a mere form. To abolish it altogether would be the most satisfactory plan. On the other hand this would require legislation; and the same end would in practice be attained if the Trinity House, with the approval of the Board of Trade, would consent to allow their statutory control to lapse into desuetude.

(IV.) CONCLUSIONS AND RECOMMENDATIONS.

75. We have now considered at some length the existing authorities and methods by which the administration of the Lighthouse Service in these Kingdoms is carried on, and the faults which are alleged against them. It remains for us to gather up the conclusions at which we have arrived, and to develop in greater detail the changes which we have already briefly indicated as being, in our opinion, desirable in order to remove or mitigate the defects which have been disclosed.

76. It will have been clear from the general trend of our observations up to this point that the evidence before us has not brought to light any crying abuses, and that we are consequently not disposed to recommend any radical changes. Should the time ever come when the Light Dues are remitted and the expense of lighting the shores of the United Kingdom is made a national charge, some comprehensive reconstitution of the whole scheme of Lighthouse Administration might perhaps be inevitable. But as matters stand, it appears to us that it would be injudicious to cast into the melting pot of legislation Authorities which, venerable though they be, have done and are still doing good service to the country, and a system which, albeit evolved many years ago, has yet in the main worked reasonably well.

(*a*) It has been almost universally admitted by the expert and unprejudiced witnesses before us that the lighting of the coasts of these islands is as good as, if not better than, that of any other country. This would appear to afford at least a *primâ facie* case for supposing that there can be no very glaring defects in the administration.

(*b*) We have been unable, after a very close scrutiny, to detect any evidence of unreasonable expenditure or of inefficient service sufficient to justify us in characterising the administration generally as other than sound.

77. We are content, therefore, to address ourselves to the remedy of those defects and anomalies in the existing system which can be dealt with without danger of destroying its entire fabric.

Our recommendations, although they fall under three heads, are to some extent interconnected. They are concerned with :—

(1.) The composition of the three General Lighthouse Authorities.

(2.) The Advisory Committee.

(3.) The controlling power of the Trinity House over the other two Lighthouse Authorities.

78. (1.) There is no doubt in our opinion :—

(*a*) That some system of superannuation or pension should be applicable to the Elder Brethren of the Trinity House.

(*b*) That some expert element should be admitted to the Scottish and Irish Boards.

79. (*a*) We therefore recommend that a new charter should be granted to the Trinity House, as was done in 1871, by which it would become the duty of the Corporation to establish a compulsory age for retirement on pension of the Elder Brethren. We would suggest £300 a year for the pension, and for the compulsory age of retirement 65, with power to the Board of Trade to sanction an extension of service up to 70 for cause shown. Arrangements might also be made for retirement at an earlier age in case of ill-health or incapacity. There are at present 13 Acting Elder Brethren. Assuming that not more than three of these would ordinarily have been retired on pension at any given time, ten at least would remain available, two of whom we contemplate should be attached to the Scottish and Irish Boards. There would thus be eight Elder Brethren left for discharging the Lighthouse and other public duties of the Corporation. It is, of course, possible that more than three of the Elder Brethren might be pensioners at a given time, and this contingency must be provided for. In that case we think it should be made competent to the Elder Brethren, if they see fit, to elect additional members to their body to the extent of the number of pensioners in excess of three.

If these arrangements were carried out, we consider that the pension money could be supplied out of the sum of £7,000 a year which is at present set apart for the remuneration of the Elder Brethren, without risk of unduly affecting the emoluments of those who were in active service. It would be understood that the retired Elder Brethren would cease to discharge any pilotage, assessor, or other similar duties, or to receive any remuneration for such duties. In making these suggestions we do not propose that the rights of existing Elder Brethren should be affected, unless any of them should elect to benefit by the new rule.

Should it be found impossible to effect an alteration on these lines in the constitution of Trinity House by Royal Charter, either because of objections on the part of Trinity House or otherwise, we recommend that a short Bill should be submitted to Parliament embodying the necessary provisions.

80. (*b*) There is, in our opinion, no doubt that the Northern Lighthouse Commissioners and the Irish Lights Commissioners would be materially strengthened by the addition of an expert naval or shipmaster element.

We therefore recommend that two Acting Elder Brethren should always be deputed by the Trinity House to reside one in Edinburgh and one in Dublin for a term of not less than one year, and should attend the meetings of the Scottish and Irish Boards, and serve on Committees of those Boards in every way as if they were members of them by statute. In the absence of legislation the consent of the three Boards to this arrangement would, of course, be necessary, but we venture to hope it would be readily given. The Elder Brethren attached to the Scottish and Irish Boards would not in that case be actually entitled to vote, but their knowledge and experience and the prestige of their position would probably render this unimportant. They would be paid professional men in constant touch with their own Corporation, and we believe that their advice and opinions, even though they might not always be followed, would be received with the highest consideration by the Boards to which they were assigned.

81. Two additional advantages may fairly be anticipated from this proposal :—

(*a*). It would help to secure uniformity in the lighting of the coasts of the three Kingdoms.

(*b*). A mutual interchange of ideas and information would necessarily grow up between the three Authorities as the various Elder Brethren successively took their turn of being attached to the Scottish and Irish Boards; and it is even possible that occasion might be found for more active forms of co-operation, for instance, by purchase of stores in common, or by utilisation of each other's resources and appliances.

82. Should it appear necessary for the two Elder Brethren serving in Scotland and Ireland to receive any additional allowances to indemnify them for any special expenses incurred through change of domicile, we consider that such allowances might properly be furnished, with the concurrence of the Board of Trade, out of the General Lighthouse Fund.

83. (2.) We recommend that the Advisory Committee as now composed should not in future be summoned by the Board of Trade, but that in place of it a new Committee should be set up by minute of the Board, to consist of 12 members, viz. :—

2 Officers of the Board of Trade, one of whom would act as Chairman of the Committee;
1 Representative of the Hydrographic Department of the Admiralty (this would, of course, be subject to the Admiralty's consent and approval);
2 Elder Brethren of the Trinity House;
1 Representative of the Northern Lighthouse Commissioners;
1 Representative of the Irish Lights Commissioners;
3 Shipowners;
1 Representative of Lloyd's;
1 Representative of Cargo-owners.

The last five should be nominated by the Board of Trade, in consultation with the Associations concerned. The representation of master mariners would be secured by the inclusion of two members of the Trinity House. We propose that the Committee should be called the "Lighthouse Committee for the United Kingdom," and be provided with a Secretary from the Board of Trade.

84. The official minute which sets up the new Committee should also define its functions. Its primary duty would be to report to the Board of Trade on all proposals for the establishment of new seamarks. Every such proposal, whether submitted to the Board of Trade by one of the General Lighthouse Authorities or coming from outside sources, would as a matter of regular routine be sent on for consideration and report to the Lighthouse Committee. It would be an understood thing that no proposal for a new seamark which had failed to obtain the approval of a majority of the Committee should receive the sanction of the Board of Trade. On the other hand it would be open to the Board of Trade to refuse their sanction even when a proposal had been approved by the Lighthouse Committee, though it is reasonable to hope that a case of this kind would not often occur. We also venture to hope that when a proposal had been approved by the Lighthouse Committee and sanctioned by the Board of Trade, the Lighthouse Authority concerned would invariably accept the decision and proceed to carry it out without demur, even (it might be) against its own judgment of the merits of the case. If, however, experience should prove this hope to be over-sanguine, it would be necessary to introduce legislation, making the Lighthouse Committee a Statutory Body and giving to the Board of Trade the power to require a General Lighthouse Authority to carry out any proposal for the establishment of a new seamark which had been both approved by the Lighthouse Committee and sanctioned by the Board of Trade itself. This would in our opinion be the best and least objectionable way of giving effect to the suggestion put forward by Mr. Llewellyn Smith, that in the last resort the Board of Trade should have power to require the Lighthouse Authorities to carry out any New Works which the Board is satisfied are necessary—a power which he admitted would need to be carefully hedged about with safeguards if the danger of conferring or seeming to confer on the Board an initiative in the matter of New Works is to be avoided. 6089-6059

85. In addition to the duty of reporting on proposals for new seamarks, we think the Lighthouse Committee might be called upon to report on other questions connected with the Lighthouse Service, particularly upon questions relating to :—

(*a*) Renewals, alterations and special repairs,

(*b*) Experimental investigations,

(*c*) Efficient organisation of the administrative services,

(*d*) Increase or reduction of Light Dues.

But as regards these matters we consider that it should be entirely within the discretion of the Board of Trade to refer them to the Lighthouse Committee or not as it thought fit; nor should the Board be in any way bound by any report on such points which it might receive from the Committee.

On all matters referred to them by the Board, whether concerned with the establishment of new seamarks or otherwise, the Committee should be entitled to call for papers and records, and to be supplied with all necessary information by the General Lighthouse Authorities.

86. (3.) Following on the above recommendations, we think that the controlling power of the Trinity House over the other two Lighthouse Authorities may cease to be exercised.

To this end we do not consider any legislative change essentially necessary. Probably it would be sufficient for the Board of Trade to desire the Trinity House, as indicated at Paragraph 74, to examine into and to report at length upon the proposals of the two other Boards only when specially requested to do so. The supervision of the Trinity House would thus in practice cease.

87. The above embody our principal proposals. We would add to them two minor recommendations :—

(1) We think it desirable that a detailed examination should be undertaken, by the Board of Trade and the Trinity House conjointly, into the expediency of removing the Blackwall Workshops to some other locality, and, should it appear advisable, into the entire question of the plant, output, and economy of that establishment.

(2) We consider that the Board of Trade should, so far as may be found practicable, cause the accounts of the three General Lighthouse Authorities to be prepared in such a manner as to render them more easily comparable than at present.

SUMMARY

88. Summarising our recommendations they are : —

(1) The institution of a system of retirement with pension for the Acting Elder Brethren of the Trinity House.

(2) The assignment of an Elder Brother of the Trinity House to act as assessor to the Scottish and Irish Boards respectively.

(3) The setting up of a new Lighthouse Committee for the United Kingdom, in place of the existing Advisory Committee, but with a more established position and a wider scope of activity, to be composed of representatives of the Board of Trade, the Admiralty, the three General Lighthouse Authorities, shipowners, underwriters and cargo-owners.

(4) Abolition or disuse of the statutory control exercised by the Trinity House over the Commissioners of Northern Lighthouses and the Commissioners of Irish Lights.

(5) A detailed expert examination into the Blackwall Works Establishment.

(6) Preparation of the accounts in a form which shall make the expenditure of the three General Lighthouse Authorities more readily comparable.

89. These recommendations could be carried out without additional expense of appreciable amount either to the General Lighthouse Fund or to the public, and also, we believe, without involving any absolute necessity for recourse to fresh legislation.

90. We conclude by placing on record the very valuable assistance which we have received from our Secretary, Captain C. Bigham, C.M.G., who has discharged his duties throughout this inquiry with much ability and to our entire satisfaction.

ALL WHICH WE HUMBLY SUBMIT FOR YOUR MAJESTY'S MOST GRACIOUS CONSIDERATION.

G. W. BALFOUR, *Chairman*

F. FORBES ADAM.

IVOR HERBERT.

W. H. HENDERSON

M. A. ENNIS.

CLIVE BIGHAM, *Secretary.*

29 *January*, 1908.

RESERVATIONS BY MR. M. A. ENNIS.

With four of the six Recommendations contained in the foregoing Report, viz., Nos. 1, 2, 5, and 6, I am in full agreement. With the principle embodied in No. 4 I also agree and differ from my colleagues only with regard to the method by which that principle should be applied. With Recommendation No. 3 I am in direct conflict.

In this position I feel that I should not be justified in refusing to sign the Report, although I have arrived at this conclusion with very considerable difficulty owing to the fact that my opinions diverge widely from those of my colleagues on several important points not covered by the Recommendations, and my signature must therefore be taken to indicate a limited acquiescence only subject to the following reservations.

On two cardinal points I find myself unable to accept the views of my colleagues as set forth in various portions of the Report :—

1. The relative efficiency of the present service of Lights, Buoys, and Beacons on the coasts of the United Kingdom as compared with similar services on the coasts of foreign countries, notably of France.
2. Reform of the Constitution of the three General Lighthouse Authorities with the view to secure a higher standard of administrative efficiency, coupled with the question of the retention in an amended form or of the abolition of the Advisory Committee.

The Report states, Paragraph 76 :—

"It will have been clear from the general trend of our observations up to this point that the evidence before us has not brought to light any crying abuses and that we are consequently not disposed to recommend any radical changes." . . . . . (*a*) "It has been almost universally admitted by the expert and unprejudiced witnesses before us that the lighting of the coasts of these islands is as good as, if not better than, that of any other country. This would appear to afford at least a *primâ facie* case for supposing that there can be no very glaring defects in the administration."

I agree that our Inquiry has not disclosed any very glaring defects or crying abuses in the administration of the Lighthouse Authorities, but it does not necessarily follow that a higher standard of efficiency combined with greater economy is unattainable.

I further agree that a fairly high standard of efficiency has been reached in the administration of the three General Lighthouse Authorities, especially by the Commissioners of Northern Lighthouses.

I am not, however, prepared to regard the existing standard of efficiency as indicating "that the lighting of the coasts of these islands is as good as, if not better than, that of any other country."

It appears to me at least doubtful whether the lighting of the coasts of the United Kingdom is equal to the lighting of the coasts of France.

In this connection it may be useful to refer to the Report of the Royal Commission of 1861 on the Condition and Management of Lights, Buoys, and Beacons.

I quote as follows therefrom :—

"*Lighthouses.*

"The following Table shows the number and the nature of the Lights in the United Kingdom :—

Country.	Lights on Shore.			Floating Lights.	Total.
	General Authority.	Local Authority.	Total.		
England	82	89	171	41	212
Scotland	46	67	113	1	114
Ireland	69	4	73	5	78
Total	197	160	357	47	404

"Of all the Lights under the General Authorities, and about half of those under the Local Authorities, Your Commissioners have obtained full returns, which will be found at length in the 2nd Volume. The Lights on shore, for which returns have been received, are classified in the following Table:—

Authority.	Light-houses.	Catoptric.	Dioptric or Catadioptric.	Apparatus not stated.	Order of Dioptric Apparatus.					
					1st.	2nd.	3rd.	4th.	5th.	6th.
England:—										
Trinity House - - - - -	82	51	31	—	20	8	—	1	—	2
Local - - - - - -	49	35	14	—	1	1	3	4	2	2
Scotland:—										
Commissioners of Northern Lights	46	14	32	—	16	4	—	9	—	—
Local - - - - - - -	24	13	3	8	—	—	—	—	—	—
Ireland:—										
Ballast Board - - - - -	69	51	18	—	10	1	4	3	—	—
Local - - - - - - -	6	—	3	3	—	—	—	—	—	—

"The Index Map at the end of Vol. I. shows the *position* of the Lighthouses in the United Kingdom, and on a portion of the French, Belgian, Dutch, and Norwegian coasts. Very few complaints are made as to the position of Lighthouses by mariners, or the agents of Lloyd's, and those which are made are generally confined to three or four sites.

"It will be seen, by looking at the Map, that the number is sometimes *insufficient*, because vessels might be within a very short distance of some parts of the coast, and beyond the estimated range of any lighthouse, even in clear weather; for instance, at Great Orme's Head on the approach to Liverpool.

"The circles of lights on the Index Map are taken from the Map published by the Board of Trade, and represent the column in the Admiralty List of Lights headed '*Miles seen in clear weather*;' but from the evidence before us, and from our own observations, the lights are not uncommonly seen at much greater distances. Any attempt to make lights so brilliant or so numerous as that one at least should be visible in fogs which are dense enough to obscure the sun, would necessarily fail; but any increase in the brilliancy of the lights will increase their range in hazy weather, and make them more efficient; and their number ought to be such as to ensure that one or more may always be within sight of a ship approaching a danger in ordinary weather.

"The west coasts of Scotland and Ireland are still *insufficiently* illuminated; and the Channel Islands lying near the track of ships bound up Channel, and surrounded by rapid tides, have been left in a state of blameable darkness, although a light is now being erected on the Hanois Rocks on the west coast of Guernsey. A reference to the Index Map will best show the *positions* where the *number* of lights is *sufficient* or *insufficient*.

"It will be observed, as respects *number* and *position* of lights, that the British coasts are *not* so well guarded as the French, for the lights are purposely so placed on the coasts of France as to 'cross their fire.'

"This may also be tested by comparing the proportion between the number of lights and the amount of coast line in England, Scotland, and Ireland, with the proportion between the number of lights and the coast line in France. The measurement of the coast line and of the islands in the respective countries is given in a Table in

Vol. I., p. 222; the number of Lighthouses is taken as before from the Admiralty List. From these data the following Table is constructed :—

Country.	Number of Lighthouses on shore.	Coast Line.	Propo. tion.
		Nautical miles.	
England - - - - - - - -	171	2,405	1 for 14.0 Miles
Scotland - - - - - - - -	113	4,469	1 „ 39.5 „
Ireland - - - - - - - -	73	2,518	1 „ 34.5 „
France - - - - - - -	224	2,763	1 „ 12.3 „

"Hence it appears that the lighthouses in France are more than three times as numerous, compared with the amount of coast, as in Scotland; but a considerable allowance must be made for the very large amount of mileage afforded by the Scottish islands and the bays on the Irish coast, which do not require a commensurate amount of lighting, as a light on an island or on one side of a channel will often obviate the necessity of a light on the main land, or on the other side. The lights in France appear to be nearly three times as numerous, comparatively speaking, as those in Ireland; but if to the 73 Irish Lighthouses be added the 5 floating lights, the discrepancy is somewhat reduced. In England too there seems at first sight to be a somewhat smaller provision made for illuminating the coasts than in France, yet if the 41 English floating lights be added to the 171 Lighthouses, as indeed justice requires, England will be found to provide a light for every 11·37 nautical miles of coast, while France furnishes one for only every 12·3 miles.

"As to the *position* of lights in France and in England, there is this notable difference: the English lights have been steadily and gradually increasing in *number* during the last two centuries and a half, additional lights having been placed, from time to time, wherever the interests of commerce demanded, and a sufficient pressure was exerted; while, on the contrary, the French lights were very few till 1825, when a grand comprehensive plan was undertaken of erecting a large *number* of additional lights, on what were considered the best *positions*, and of remodelling the whole system.

"The coasts of the United Kingdom are better guarded than those of Holland, Norway, or perhaps any other country, excepting France. . . . . .

"*Quality compared with Foreign Lights.*

"With reference to *the quality of the lights of the United Kingdom as compared with foreign lights*, the answers to Questions 4 and 5 of Circular VIII. show that the majority of the mariners who use them consider British lights generally to be at least equal to all others in the world, and that those of France rank next. Out of 586 who have replied to Question 4, 'Do you think that the coasts of the United Kingdom are as well lighted as any of the foreign coasts which you have already named?'—514 consider the coasts of the United Kingdom as well lighted as any others with which they are acquainted, while in reply to Question 5, 'If you think that the coasts of the United Kingdom are not so well lighted as those of any other country or countries, name those countries in the order in which you prefer their lights'—out of 311, 200 express their preference of the British lights, and only 33 prefer those of any other country. Nor is this due to any patriotic prejudice in favour of England, for of the 34 masters of foreign vessels who have answered Question 4, 24 think England as well lighted as any other country they know; one is doubtful; but not one foreigner prefers the lighting of any foreign shore.

"These comparisons by the 200 mariners who prefer British lights and the 33 who prefer those of some other country have, however, been more closely analysed; and it appears that out of the 200, only 42 profess to be well acquainted with the coasts of France, while it must be remembered there are 25 who express a preference for the French lighting. This weight of evidence, therefore, in favour of the United Kingdom as compared with France is not great. Many circumstances also must interfere with the accuracy of such comparisons; for instance, on the one hand an advantage is given

to foreign countries by the greater clearness of the atmosphere, and, on the other hand, an advantage is given to Great Britain by its shores being the usual landfall of those mariners who have replied to the questions."

A study of the foregoing seems calculated to lead to the conclusion, notwithstanding the replies to Question 4, which are somewhat discounted by the Commissioners' remarks thereon, that at the date of the 1861 Report the lighting of the coasts of the United Kingdom compared unfavourably with the lighting of the coasts of France.

Since 1861 the Lighthouses and Lightvessels on the coasts of the United Kingdom under the control of the three General Lighthouse Authorities have increased in number as set forth in the following Table (Appendix A-VII.):—

	Lighthouses.		Lightvessels.	
	1861.	1906.	1861.	1906.
Trinity House - -	82	93*	41	52
Northern Lighthouses - - -	46	91†	1	1
Irish Lights - - - - - -	69	75	5	11
	197	259	47	64

† 82 Lighthouse stations, including 11 double stations.
1 Double station.

This discloses an increase of about 29 per cent. in Lighthouses and 36 per cent. in Lightvessels.

During the same period the number of "Local Lights" on the coasts of the United Kingdom has enormously increased, as shown by the following comparison between the figures quoted in the Report of 1861 and the current Admiralty List:—

	1861.	1906.
England and Wales - - - - - -	89	882
Scotland - - - - - - - -	67	405
Ireland - - - - - - - -	4	203
	160	1,490

disclosing an increase of over 830 per cent., which, however, is far more apparent than real, as the Admiralty Lists now contain a large number of lights which can with great difficulty be regarded as of much navigational value.

Thus of 882 "Local Lights" within the jurisdiction of Trinity House about 108 only can reasonably be classed as Lighthouses. Between 50 and 100 lights are erected on promenade piers. The Corporations of Bristol (51), Wisbech (24), and Preston (39), control over 100 lights. Numerous private individuals and firms have also erected lights which are entered in this list. The Manchester Ship Canal appears for a few lights, and the various Railway Companies account for over 150 lights, a larger number than the General Lighthouse Authority holding jurisdiction within the same area controls.

Lighthouses on the coasts of France number at present 534, as compared with 224 in 1861, an increase of over 138 per cent.

Lightvessels on the same coasts number 7, as compared with 2 in 1861, an increase of 250 per cent.

The coastline mileage of France is 2,970 nautical miles.

The proportion of lights to coast mileage is, therefore, 1 in 5·5 miles.

Without more exact data as to the number of Lighthouses included in the list of Local Lights on the coasts of the United Kingdom, I cannot accurately state the exact proportion between lights and coastline mileage. I believe the following figures to be approximately correct, but probably to over-estimate the actual number of Lighthouses:—

Total number of Lighthouses, United Kingdom - - -	506
,, Lightvessels ,, ,, - - -	64
	570

Coastline mileage, United Kingdom :

England and Wales - - - -	2,317	Nautical Miles.
Scotland - - - - -	4,557	,, ,,
Ireland - - - - - -	2,518	,, ,,
	9,392	

The proportion of lights to coast mileage is, therefore, 1 in 16·4 miles.

Consequently it would appear that for each 16½ miles of coastline France possseses 3 lights, and the United Kingdom 1.

Turning to the question of the intensity and character of lights, the Engineers and Scientific Advisers of each of the three General Lighthouse Authorities agree that whilst electric light is not in their opinion worth the high cost of its installation and maintenance, its efficiency apart from its cost is greater than that of any other illuminant. (Questions 2200, 2207, 2510, 2516, 4138, 4140, 6040.)

Mr. D. A. Stevenson, B.Sc., M.I.C.E., Engineer to the Commissioners of Northern Lighthouses, states in his evidence (Question 2516) :—

"Some people think it is not a good illuminant for a Lighthouse, but it is ; it is the very best. I have not the least doubt in my own mind it is the best illuminant for a Lighthouse, bar the expense."

The French coastline is provided with 13 powerful electric lights, the coasts of the United Kingdom with 5. I cannot profitably endeavour to compare the relative intensities of these lights, as the British Authorities challenge the accuracy of the French method of computation, which gives 29,000,000 candle-power for Grisnez and similarly large figures for other important lights.

As to cost, the French Ministry of Public Works estimates the average annual cost during the past three years of the French Lighthouse Service as 3,100,000 francs, plus 100,000 francs for Head Office expenses, and a further considerable sum, which cannot be definitely stated, for the services of a large staff of local engineers and officials who have numerous other duties to perform in addition to those connected with Lighthouses, Buoys, and Beacons.

In any comparison as to cost it must, in justice to the British Authorities, be borne in mind that Rock and Island Lighthouses and Lightvessels, which are numerous on the coasts of the United Kingdom, cost enormously more to erect and to maintain than Mainland Lights, of which the French Service is chiefly composed.

Various witnesses admit that expenditure on experimental work in the United Kingdom has been inadequate. Probably, as a result, we find that most of the important modern inventions in aid of marine lighting, such as mercury floats, hyperradiant lenses, etc., have come from France and other countries. (Questions 3007, 3011, 5233.)

The modern development of vessels of great tonnage, high speed and heavy draught appreciably increases the dangers of collision and stranding in fog, and renders attention to effective fog-signalling imperative. Anything calculated to avoid "areas of silence" deserves careful investigation, and the submarine bell adopted by foreign countries some years since does not appear to have received in these islands the attention to which the favourable opinion expressed by many witnesses would appear to entitle it. (Questions 2651, 3664, 4125, 4225, 4296, 5945, 5946, 6036.) The refusal of the Trinity House to permit the Zeeland Steamship Company to carry out at the Company's expense experiments with this admittedly valuable invention indicates a conservatism on the part of the General Lighthouse Authority not calculated to keep a modern Service of ever increasing importance abreast of modern invention. (Question 5039.)

I quote from an address delivered in January, 1905, to the Canadian Society of Civil Engineers by Lieutenant-Colonel W. P. Anderson, M.I.C.E., F.R.G.S., Chief Engineer of the Canadian Department of Marine and Fisheries :

"A modern lightship such as those lately moored off Anticosti and off Lurcher Shoal in the Bay of Funday is a perfect battery of ingenious mechanisms. From the electric lights at her mastheads automatically occulted by clockwork, making and breaking the current produced by a dynamo in the engine room, to her moorings connected with powerful automatic buffers and steam windlasses to relieve the strain on her bows, she is full of interesting machinery. She is self-propelling, provided with

a powerful fog alarm, a submarine bell, and a Marconi telegraph instrument. For the design of these vessels we are indebted to the United States Lighthouse Board, whose plans were adopted under the conviction that its long experience with lightships in the open Atlantic was too valuable to be ignored."

We do not appear to have any modern lightship of this advanced type on the coasts of the United Kingdom.

I may summarise my views on this branch of the subject by stating that the United Kingdom does not, in my opinion, hold that front rank position with regard to the Lights, Buoys, and Beacons on her coasts which her maritime supremacy and the enormous volume of her seaborne trade would appear to demand.

In considering the questions of the Constitution of the three General Lighthouse Authorities and the position of the Advisory Committee the Commissioners appear to be agreed that the Constitution of each of the three General Lighthouse Authorities, especially the Trinity House and the Commissioners of Irish Lights, is unsatisfactory and capable of improvement.

We are also agreed that the absence of an expert nautical element is a source of weakness to the Scottish and Irish Boards, which we desire to remedy.

I am of opinion that the absence of a commercial element may also conceivably be a source of weakness to a highly expert body, from a nautical point of view, such as the Trinity House, whose business methods do not appear to me to be quite as efficient as those of the sister authorities, especially of the Commissioners of Northern Lighthouses.

I regard the original appointment of the Advisory Committee as an error of judgment. It was, as stated in the Report, Paragraph 23, a compromise with regard to the request of shipowners that direct representation on the three General Lighthouse Authorities should be given to them, and, in my opinion, such representation is preferable to an arrangement whereby New Works only are submitted to this Committee, whilst at least four-fifths of the annual expenditure of the three General Lighthouse Authorities lies entirely outside their purview, the result seeming to be that economy which, spread over the whole system of administration, might be harmless and even desirable may, when applied to one particular and important branch of the Service only be excessive and hurtful.

The proposal of my colleagues to perpetuate the principle embodied in the appointment of the Advisory Committee by setting up a new Committee to be known as the Lighthouse Committee for the United Kingdom (Report, Paragraph 83), which Committee would be, like the Advisory Committee, devoid of statutory powers, meets with my strongest disapproval, and I regard as being especially objectionable the condition set forth in Paragraph 84, viz., "It would be an understood thing that no proposal for a new seamark which had failed to obtain the approval of a majority of the Committee should receive the sanction of the Board of Trade."

Some forecast of the probable result of the adoption of this recommendation may be arrived at by reference to two Returns furnished to the Commission by Mr. Pelham, Board of Trade, viz., Appendix A—I., "New Lighthouse Works objected to by the Advisory Committee," and Appendix A—II., "New Lighthouse Works recommended by the Advisory Committee."

I select for consideration the proposals of the Commissioners of Northern Lighthouses, who are probably the most practical and efficient of the Lighthouse Authorities, and I desire to point out that in the period 1901-1906 the Advisory Committee recommended for adoption one proposal only emanating from the Scottish Board, whilst during the same period they objected to no less than 20 proposals coming from the same source. Fortunately the Advisory Committee did not possess the absolute power of veto now proposed to be conferred on the Lighthouse Committee, and the Board of Trade disregarding the objections of the Advisory Committee sanctioned 16 of the proposals objected to by that body, the proposals so sanctioned involving expenditure estimated at £61,544. With regard to the remaining four proposals objected to by the Advisory Committee the Board of Trade postponed three and refused one only.

The creation of a Lighthouse Committee on the basis suggested in the Report appears to me to be calculated to deprive the Commissioners of Northern Lighthouses and the Commissioners of Irish Lights of the semi-independent position which they

have hitherto enjoyed, and by depriving them of their right of appeal to the Board of Trade to reduce them to a condition of absolute dependence upon the Lighthouse Committee, which would become in effect a new Supreme Authority.

In the reconstruction of the three General Lighthouse Authorities which I contemplate, and which I suggest hereunder, I aim at

1. A strong central control to be vested in the Board of Trade.

2. Direct representation of the Board of Trade on each of the three General Lighthouse Authorities.

3. A decentralised system of administration.

4. Uniformity of method so far as is practicable.

5. Abolition of the Advisory Committee and direct representation on each of the three Lighthouse Authorities of the interests represented by that body.

6. Abolition of the present control of the Scottish and Irish Boards by the Trinity House.

7. Direct representation of Trinity House on the Scottish and Irish Boards and consequent addition of an expert nautical element to each.

Proposed Reconstruction of Lighthouse Authorities.

Trinity House

1. The body known as "Younger Brethren" to cease to exist.

2. Existing arrangements with regard to co-option of Honorary Elder Brethren to continue in force.

3. The qualifications for Acting Elder Brethren, viz., rank of Commander in the Royal Navy, with three years command at sea, or, if in the Merchant Service, four years command at sea on foreign voyages, to continue in force.

4. Vacancies as they occur by death or retirement of Acting Elder Brethren to be filled with a view to the ultimate constitution of the Board thus :—

7 Representatives elected by Local Authorities, one from each district into which the administration of Trinity House is sub-divided, viz., Holyhead, Milford, Penzance, South-East, London, Yarmouth, and North-East.

3 Representatives of the shipowning interest elected by the Associated Chambers of Commerce of England and Wales.

1 Representative elected by Lloyd's.

1 Representative elected by Shipmasters' Association.

1 Representative nominated by the Board of Trade.

13

Commissioners of Northern Lighthouses:

The following additional members to be appointed :—

3 Representatives of the shipowning interest elected by the Scottish Chambers of Commerce.

1 Representative nominated by the Board of Trade.

1 Representative nominated by and to be an Elder Brother of the Trinity House.

5

Commissioners of Irish Lights.

A new Board to be appointed, consisting of :—

5 Members of the existing Board to be nominated by that Board before its dissolution, and to hold office for life or until voluntary retirement.

8 Representatives of Local Authorities elected, two for each Province in Ireland, by the Harbour Boards possessing statutory existence and situated within the limits of the Province.

3 Representatives of the shipowning interest elected by the Chambers of Commerce of Dublin, Belfast, Cork, Limerick and Waterford.

3 Representatives elected by the Dublin Port and Docks Board.

1 Representative nominated by the Board of Trade.

1 Representative nominated by and to be an Elder Brother of the Trinity House.

21, the Board gradually falling to 16 members as the 5 members to be nominated by the present Board die or retire.

M. A. ENNIS.

ROYAL COMMISSION ON LIGHTHOUSE ADMINISTRATION.

Volume II.

MINUTES OF EVIDENCE

TAKEN BEFORE THE

ROYAL COMMISSION ON

LIGHTHOUSE ADMINISTRATION,

WITH

APPENDICES AND INDEX.

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VOLUME II.

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TERMS OF REFERENCE.

To inquire into the existing System of Management of the Lights, Buoys, and Beacons on the Coast of the United Kingdom by the Three General Lighthouse Authorities, and as to the Constitution and Working of these Authorities, and to report what changes, if any, are desirable in the present arrangements.

345. 1250.—Wt. T.L. 275. 2/08.—Wy. & S.

LIST OF WITNESSES.

In the order in which they appeared before the Royal Commission.

Date.	Name of Witness.	Profession or Occupation.	Representing.	Number of First Question.	Page.
1906.					
1st Day - Nov. 6th.	* The Hon. T. H. W. PELHAM, C.B. (App. A, I.–IV.)	Assistant Secretary (Harbour Department) Board of Trade.	Board of Trade -	1	1
2nd Day - Nov. 9th.	* Mr. A. OWEN - - (App. B, I–VI.)	Secretary to Trinity House -	Trinity House - -	254	12
3rd Day - Nov. 13th.	* Mr. H. G. COOK - (App. B, II.–VI.)	Secretary to the Commissioners of Irish Lights.	Commissioners of Irish Lights.	730	29
4th Day - Nov. 20th.	* Mr. C. DICK PEDDIE - (App. B. II.–VI.)	Advocate, Secretary to the Commissioners of Northern Lighthouses.	Commissioners of Northern Lighthouses.	1294	45
5th Day - Nov. 30th.	* Mr. A. NORMAN HILL (App. C. I. and II.)	Solicitor, Secretary to the Liverpool Steamship Owners' Association.	The Liverpool Steamship Owners' Association.	1781	63
6th Day - Dec. 5th.	Mr. T. MATTHEWS -	M.I.C.E., Engineer-in-Chief to Trinity House.	Trinity House - -	2021	73
	Mr. D. A. STEVENSON -	B.Sc., M.I.C.E., M.I.M.E., F.R.S.E., Engineer to the Commissioners of Northern Lighthouses.	Commissioners of Northern Lighthouses.	2476	88
7th Day - Dec. 6th.	Mr. C. W. SCOTT - -	B.E., A.M.I.C.E., Engineer-in-Chief to the Commissioners of Irish Lights.	Commissioners of Irish Lights.	2730	97
	Captain ALLISON WOOD	Master Mariner (retired), Secretary to the British Shipmasters' and Officers' Protection Society.	British Shipmasters' and Officers' Protection Society.	3132	117
8th Day - Dec. 11th.	* Sir THOMAS BLOMEFIELD, Bart., C.B. (App. A. V.–IX.)	Assistant Secretary (Finance Department) Board of Trade.	Board of Trade -	3223	120
1907.					
9th Day - Feb. 19th	Captain T. H. TIZARD, C.B., R.N.	F.R.S., Assistant Hydrographer to the Royal Navy.	Admiralty - -	3470	129
10th Day - Feb. 26th	Captain E. F. INGLEFIELD, R.N.	Secretary to Lloyd's - -	Lloyd's - - -	3573	133
	Captain W. S. WADE -	Shipmaster, Member of Council of the Mercantile Marine Service Association.	Mercantile Marine Service Association.	3670	138

* An asterisk is placed against the names of those witnesses by whom Statistical Tables, etc., were put in, which have been reprinted as Appendices, and the number of the Appendix put in is indicated in each case in brackets after the witness' name.

LIST OF WITNESSES—*continued.*

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11th Day - Mar. 5th	Mr. R. COOPER RUNDELL	Secretary to the Association of Underwriters and Insurance Brokers, Glasgow.	Association of Underwriters and Insurance Brokers, Glasgow.	3935	150
	The Right Hon. the Lord RAYLEIGH, O.M.	D.C.L., LL.D., F.R.S., Hon. Sc.D., Scientific Adviser to Trinity House.		4078	155
12th Day - Mar. 19th	Commander G. C. FREDERICK, R.N.	A.M.I.C.E., Nautical Adviser to Board of Trade.	Board of Trade -	4156	159
	Captain A. BOXER, R.N.	Late Inspector under Irish Lights Commissioners.		4377	169
	Mr. S. LAWTHER - -	D.L., Alderman, Corporation of Belfast.		4456	172
13th Day - Mar. 26th	Mr. T. F. COOKE - -	Merchant, Chairman of Harbour Board, Londonderry.	Delegates of the Conference of Harbour Authorities in Ireland.	4671	182
	Mr. H. J. FORDE - -	Merchant, Member of Harbour Board, Waterford.		4694	183
	Mr. MARCUS LYNCH -	D.L., Chairman of Harbour Board, Galway.		4714	183
	Mr. T. N. REDINGTON -	Secretary to Harbour Board, Galway, and Secretary to Delegates of the Conference of Harbour Authorities in Ireland.		4741	184
14th Day - Ap. 30th	Sir GEORGE VYVYAN, K.C.M.G.	Deputy Master of Trinity House	Trinity House -	4942	192
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	Mr. A. Owen (recalled) -	*Secretary to Trinity House*		4974	194
15th Day - May 8th	Mr. D. CRAWFORD -	K.C., Sheriff of Aberdeen, Kincardine and Banff	Commissioners of Northern Lighthouses	5437	214
	Mr. J. A. FLEMING -	K.C., Sheriff of Dumfries and Galloway		5443	215
	Mr. C. Dick-Peddie (recalled)	*Advocate, Secretary to the Commissioners of Northern Lighthouses*		5477	218
16th Day - May 15th	Sir WILLIAM WATSON, D.L.	A.M.I.C.E., D.L., J.P., Managing Director, City of Dublin Steam Packet Co., Member of Irish Lights Board	Commissioners of Irish Lights	5681	228
	Sir ROBERT BALL - -	LL.D., F.R.S., Lowndean Professor of Astronomy and Geometry, Cambridge, Scientific Adviser to the Commissioners of Irish Lights.		5952	246
	Mr. H. G. Cook (recalled)	*Secretary to the Commissioners of Irish Lights*		5731	232
17th Day - June 18th	Mr. H. LLEWELLYN SMITH, C.B.	Permanent Secretary to the Board of Trade	Board of Trade -	6056	251
	The Hon. T. H. W. Pelham, C.B. (recalled)	*Assistant Secretary (Harbour Department), Board of Trade*		6091	254

* An asterisk is placed against the names of those witnesses by whom Statistical Tables, etc., were put in, which have been reprinted as Appendices, and the number of the Appendix put in is indicated in each case in brackets after the witness' name.

MINUTES OF EVIDENCE

TAKEN BEFORE THE

ROYAL COMMISSION ON LIGHTHOUSE ADMINISTRATION.

FIRST DAY.

Tuesday, 6th November 1906.

PRESENT:

The Right Hon. G. W. BALFOUR (*Chairman*).

Sir FRANK FORBES ADAM, C.I.E.
Colonel I. J. C. HERBERT, C.B., C.M.G., M.P.
Vice-Admiral W. H. HENDERSON.
Mr. M. A. ENNIS.
Captain C. BIGHAM, C.M.G. (*Secretary*).

The Hon. T. H. W. PELHAM, C.B., called in; and examined.

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1. (*Chairman.*) You are Assistant Secretary to the Harbour Department of the Board of Trade?—Yes.

2. And it is on behalf of the Board of Trade that you are here to give evidence?—Yes.

3. Can you indicate to us the general scope of your evidence?—I propose, with your permission, Sir, to state the powers and jurisdiction of the Board of Trade and the three General Lighthouse Authorities with respect to the lighting and buoying of the coasts of the United Kingdom. I do not propose on the present occasion at any rate to make any suggestions for the alteration of the existing Authorities.

4. Can you state the extent of the jurisdiction?—The lighthouses, buoys and beacons on the coast of the United Kingdom are superintended and managed by three General Lighthouse Authorities, the Trinity House being the authority for England and Wales, the Commissioners of Northern Lighthouses for Scotland, and the Commissioners of Irish Lights for Ireland, including in each case the adjacent seas and islands. I may mention that the jurisdiction of the Trinity House also extends to the Channel Islands and Gibraltar, while the Isle of Man is included in the area of the Commissioners of Northern Lighthouses.

5. And you propose to deal with the constitution of the General Lighthouse Authorities?—Yes, I have no doubt that the witnesses for the three Lighthouse Authorities will give more detailed evidence as to the history and the constitution; I propose just to give in a general way the powers and authorities under the Merchant Shipping Acts.

6. There are also local Lighting Authorities, are there not, in addition to the General Lighthouse Authorities?—Yes, wherever there is a local Lighthouse Authority, the General Lighthouse Authorities are excluded. Most of the harbours and estuaries of rivers are lighted by local authorities, who may be Harbour Commissioners, Conservancy bodies, or sometimes private owners of harbours. In some cases, as in the Thames, the General Lighthouse Authority is responsible for the lighting of the whole port, while in other cases, *e.g.*, the Mersey, the Harbour Authority lights not only the river but a large extent of sea forming the approach to the harbour.

7. Will you describe to us the powers of the General Lighthouse Authorities and the relations of the different Boards to each other and to the Board of Trade?—The powers of the three General Lighthouse Authorities are set out in Part XI. of the Merchant Shipping Act, 1894. Their powers are subject to the control of the Board of Trade, more particularly as regards expenditure. Beginning with the Scotch and Irish Boards, any schemes submitted by them have to come through the Trinity House to the Board of Trade. Whenever the Northern Lighthouse Board or the Irish Lights Board propose to exercise any of their lighthouse powers, they have to submit a scheme to the Trinity House and through them obtain the sanction of the Board of Trade. The procedure is set out in Section 640 of the Merchant Shipping Act.

8. Will you read the Section?—The second paragraph begins:—"(2) The Trinity House shall take into consideration any scheme so submitted to them and shall make a report, stating their approval or rejection of the scheme with or without modification, and shall send a copy of the report to the Commissioners by whom the scheme is submitted.

Board of Trade control.

"(3) For the purpose of obtaining the sanction of the Board of Trade to any scheme so submitted to the Trinity House, the Trinity House shall send a copy of the scheme and of their report thereon, and of any communications which have passed with reference thereto between them and the Commissioners by whom the scheme is submitted, to the Board of Trade, and that Board may give any directions they think fit with reference to the scheme, and may grant or withhold their sanction either wholly, or subject to any conditions or modifications they think fit.

"(4) The Commissioners by whom a scheme is submitted may, before a decision on the scheme is given by the Board of Trade, forward either to that Board or to the Trinity House any suggestions or observations with respect to the scheme or the report of the Trinity House thereon, and the Board of Trade, in giving any decision on the scheme, shall consider those suggestions or observations."

The object of the requirement of the sanction of the Trinity House to works proposed by the other Lighthouse Authorities would appear to be to secure uniformity of system of the lighting of the coasts of the United Kingdom. In the case of the exercise of lighthouse powers by the Trinity House themselves there is no similar requirement that the sanction of the Board of Trade shall be obtained. This may be an omission in the Act, but as a matter of fact the Trinity House cannot exercise any of their powers which involve expenditure out of the General Lighthouse Fund without the approval of the Board of Trade.

9. The sanction of the Board of Trade is required to expenditure?—That is under Section 660, which says that no expenses for lighthouses, buoys, and beacons shall be paid out of the General Lighthouse Fund until an estimate or account has been approved by the Board of Trade. Under the provisions of that section estimates are submitted by each of the three Authorities in the month of October or November for the expenditure of the year, which commences on the next 1st of April. The new works proposed are carefully considered by a Nautical Adviser of the Board of Trade, and subsequently in the month of December a conference is held at the Board of Trade Offices

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between representatives of the Lighthouse Authorities, the President of the Board of Trade generally being in the chair. At this meeting the objections of the Trinity House to any of the works proposed by the other Authorities are considered, and also any objections which may be raised by the Board of Trade. An endeavour is made to bring the expenditure on new works down to a reasonable sum. Some of the works which are considered less pressing are, if the total estimates are considered too high, postponed till another year.

Advisory Committee: Constitution.

10. Of late years an Advisory Committee have been taken into counsel when proposals for new works are under consideration, is not that so?—Yes. Since the year 1899 an additional conference has been held every year at the offices of the Board of Trade between representatives of the Board, the three General Lighthouse Authorities, and an Advisory Committee representing various shipping interests. The circumstances which led to the appointment of this committee are as follows: In April, 1899, a deputation from the Chamber of Shipping of the United Kingdom, the Shipping Federation, and the Associated Chambers of Commerce had an interview with the President of the Board of Trade (Mr. Ritchie) to urge that representation should be given to shipowners and shipmasters on the Lighthouse Boards, and that the General Lighthouse Authorities should be reconstructed. Mr. Ritchie, while declining to initiate legislation for this purpose, offered that "if the Chambers of Commerce and the Chamber of Shipping would submit the names of a committee that would adequately represent the views of shipowners with respect to all questions of new works and new lights, where they ought to be, and how they ought to be placed, and what the expenditure ought to be, he would undertake that they should be called together annually to meet at the Board of Trade, and before any proposals submitted by the General Lighthouse Authorities were sanctioned the Committee should be consulted, with a view of seeing whether the wishes and objects which the shipowners desired could be secured, before consent was given to the works which were suggested."

11. And the offer was accepted by the Chamber of Shipping?—This offer was accepted by the Chamber of Shipping, by whom a scheme for the constitution of the Advisory Committee was prepared. The scheme provided that the Committee should consist of twelve members, namely:—Four shipowners representing England, two shipowners representing Scotland, two shipowners representing Ireland; all of these shipowners to be elected by the Executive Council of the Chamber of Shipping; two merchants to be selected by the Council of the Associated Chambers of Commerce; two underwriters to be selected by the Committee of Lloyd's. The Committee, which of course has no legal status, was constituted accordingly, and met for the first time in April 1900 to consider the new works proposed to be undertaken in the year 1900-1.

Functions.

The above extract from Mr. Ritchie's speech is the only authority as to the extent of the powers and duties of the Advisory Committee. It will be observed that only new works and the expenditure thereon were included amongst those subjects. Care had to be taken that the appointment of a voluntary committee should not in any way interfere with the responsibilities of the statutory Authorities, to whom Parliament had entrusted the management of the lights of the United Kingdom.

12. The functions of the Advisory Committee were not formally defined by any official reference or limit?—No, nothing of the sort; nothing except Mr. Ritchie's speech, which was taken down, and of which we have a report. The Committee was supposed to consist of experts who would be able to give advice to those statutory Authorities as to what lights were required and what were not required by the shipping interests. The shipowners, however, have never been satisfied with the limitation of the advisory duties of the Committee on the questions of new works, and at the annual meetings and on other occasions have frequently expressed the desire to widen the scope of their discussions so as to include expenditure on maintenance, salaries, pensions, etc., but the Board of Trade did not, on the grounds which I have mentioned, see their way to comply with the request.

13. It rests entirely with the Board to decide what schemes shall come before the Advisory Committee?—Entirely. In general the distinction between the proposed new works and other proposals presents no difficulty, but this is not always so. For example, in the case of the construction of a new vessel, the erection of piers and stores, and dwellings for the keepers, the question was more difficult, but the Board of Trade came to the conclusion that such works did not come within the scope of the Advisory Committee's appointment. The Advisory Committee have also asked to be allowed to criticise the salaries and pensions and other establishment expenses of the General Lighthouse Authorities; but these seemed clearly to be matters upon which it would be impolitic to consult the Advisory Committee. I may here state that the Board were advised that they had no power to pay out of the General Lighthouse Fund any remuneration to the members of the Advisory Committee, but they are allowed their travelling and other expenses, which amounted to £77 in the year 1904-5.

New Works. Procedure for initiation of.

14. Will you explain to us in more detail the procedure followed when proposals for new works have to be considered?—As already stated, the General Lighthouse Authorities submit rough estimates in October or November in each year of the new works proposed to be constructed during the financial year commencing on the following first of April. These estimates are printed and discussed at a preliminary conference held in December, to which only the Lighthouse Authorities are invited. The revised estimates are then sent to the Advisory Committee for their consideration, and are afterwards further discussed at a conference of the Advisory Committee and the Lighthouse Authorities in the following January or February at the Board of Trade.

14a. I think you proposed to put in a specimen of the print of the estimates?—Yes. I put in a specimen of the print of the estimates as discussed at the preliminary conference with the General Lighthouse Authorities. I also put in a specimen of the print of the revised estimates as subsequently submitted to the second conference to which the Advisory Committee took part.* At this latter conference each item is dealt with separately, and the reasons which have led to the necessity for the work are explained by representatives of the General Lighthouse Authorities. In the case of works proposed by the Scotch or Irish Boards, the opinion of the Trinity House is taken. The Advisory Committee are invited to express their opinion as to the desirability of the new works proposed by any of the Lighthouse Authorities. They are also asked if they wish to suggest any other new lighthouses or buoys. Very often the Nautical Adviser of the Board of Trade is asked by the President to give his views. In some cases the President gives his decision at the time, but in other cases the decision is reserved by the President for further consideration, and further information is obtained and submitted to the Advisory Committee, who submit their views by letter.

Advisory Committee. Value of.

15. Are you in a position to express any opinion as to the value of the assistance given by the Advisory Committee?—There is no doubt that the views expressed by the Advisory Committee have been of considerable assistance to the Lighthouse Authorities and the Board of Trade, but it is difficult to state to what extent the Advisory Committee have been successful in controlling expenditure on the one hand or in getting useful works done on the other. The former is more difficult, perhaps—that is to say, to show how far they have prevented expenditure. I have observed that in some cases the Advisory Committee have taken credit to themselves for having prevented the expenditure of so many thousand pounds, but the effect of their recommendations has been somewhat exaggerated. Works are often proposed by the Scotch or Irish Boards which are objected to by the Trinity House, and which would not have received the approval of the Board of Trade even if the Advisory Committee had not existed, but the Board have thought it desirable in some of these cases before refusing sanction to hear the opinion of the Advisory Committee on the proposal, and therefore the works have been included in the estimates to be considered at the Conference. In some years the expenditure originally proposed on new works by the three General Lighthouse Authorities has, in the opinion of the Board of Trade, been more than should be sanctioned, but before postponing any particular work the Board of Trade have been anxious to avail themselves of the advice of the

* See Appendix A. III.

Advisory Committee, as to which works are desirable or most urgent. At the same time, though the Committee are hardly justified in such cases in taking credit for reduction, their advice has been of considerable assistance in these cases to the Board and the General Lighthouse Authorities.

New Works: Those objected to and suggested by Advisory Committee.

16. Can you hand in lists showing the principal works objected to by the Advisory Committee, and the decision of the Board of Trade in respect thereto?—Yes, I hand in two lists. The first list shows the principal works objected to by the Advisory Committee, and the decision of the Board of Trade with respect thereto, while the second gives the works suggested by the Committee, and the action taken by the Lighthouse Authorities and the Board of Trade.*

Expenditure on,

17. The Advisory Committee has often urged, has it not, that expenditure on new works in any one year should be limited to a sum of £50,000?—That was the sum which was mentioned by some representatives of the General Lighthouse Authorities to Lord Courtney's Mercantile Marine Fund Committee as being in their opinion reasonably sufficient for the future annual expenditure on new works. I hand in a statement of such expenditure for the last twenty-five years, from which it will be seen that this sum has been exceeded every year since the Committee reported, though for the last year, 1905-6, the excess was only £456.

Procedure in urgent cases.

18. Would you give us an account of the procedure followed in the case of urgent new works?—It is provided by Section 660 (2) that where it is necessary in providing for any sudden emergency to incur any expense without waiting for the sanction of an estimate, a full account of the expense shall as soon as possible be submitted by the Lighthouse Authorities to the Board of Trade. These cases, of course, cannot be submitted to the Advisory Committee. There are other cases in which urgent new works are submitted to the Board of Trade for approval after the yearly conference with the Advisory Committee has been held. These are sanctioned by the Board of Trade if considered urgent, but proposals for large expenditure are laid before the Advisory Committee by correspondence for their observations.

19. Perhaps it would be convenient that you now kindly summarise what you have told us about the procedure as to expenditure?—The above procedure relates to all expenditure by the three Lighthouse Authorities for lighthouses, buoys and beacons, other than establishment expenses, which are dealt with on a separate principle. The procedure may be re-stated shortly as follows:—In the case of lighthouse works, as defined by Section 638, being proposed by the Scotch or Irish Boards a scheme has to be submitted to the Trinity House and the sanction of the Board of Trade obtained through them. In the cases of all expenses of a Lighthouse Authority in respect of the service of lighthouses, buoys, and beacons (other than establishment expenses) an estimate or account thereof has to be approved by the Board of Trade. So far as those expenses relate to new works, any proposal is submitted by the Board of Trade to the Advisory Committee for their observations, and the matter is discussed with them and the three General Lighthouse Authorities at the annual conference. In urgent cases of new works proposed after the conference has been held, and which involve large expenditure, the Committee are asked to submit their observations in writing.

Board of Trade: Have no authority to initiate expenditure.

20. Have you anything more to add on the subject of new works?—No, I think that is all, Sir, except that I may mention that the Board of Trade have often been asked by Members of Parliament or by local authorities or by others to establish some lighthouse, beacon, or buoy on a particular part of the coast. The Board have always replied that they have no statutory authority to initiate or to suggest expenditure. They have only power to sanction or refuse sanction to works which are proposed by the General Lighthouse Authorities. As regards Scotland and Ireland, the Trinity House have power, with the sanction of the Board of Trade, to require the General Lighthouse Authority to establish a light, but as regards England, the Trinity House are the only body who can propose the establishment of a light. The Board have, as a matter of fact, submitted suggestions of this nature to the Lighthouse Authorities for their observations, and in some cases works have in consequence of such suggestions been adopted by the Lighthouse Authorities, who have subsequently applied to the Board of Trade for sanction to the necessary expenditure.

But control Contracts,

21. What about contracts for works, stores and other supplies; have these to be submitted to the Board of Trade?—Yes, sir; all contracts have to be submitted to the Board of Trade for their sanction in the case of works, stores and other supplies, and as a general rule the Lighthouse Authorities are obliged to invite tenders. In this respect the control of the Board of Trade would seem to be more complete than that exercised by the Treasury over the expenditure of Public Departments.

22. In this sense, that the Treasury sanctions the total sum to be spent by any Public Department, of course the general items being specified, but does not examine into the contracts which that Department may enter into?—Yes, that is so.

Establishment Expenses,

23. What control is there over establishment expenses?—Establishments are fixed—that is to say, the number of officers and their remuneration are fixed—by His Majesty by Order in Council, which fixes the salaries which are to be paid to the various officials (see Section 659 of the Merchant Shipping Act, 1894). These Orders in Council are prepared by the Board of Trade from time to time, after conference with the General Lighthouse Authorities. The section provides that no increase of any establishment shall be made without the consent of the Board of Trade. An Order in Council has to be obtained by the Board if they desire to give effect to any recommendation of a General Lighthouse Authority for the increase of salary for any official. There are various temporary and other minor officials whose remuneration is not fixed by Order in Council, but payment of which cannot be made without the consent of the Board of Trade.

and Pension

24. Will you state the regulations as to pensions?—By Section 665 pensions are payable to the officers of the General Lighthouse Authorities, subject to the sanction of the Board of Trade. Under the same section the amount of the pension is limited to the proportion of his salary which might be granted to a person in the Public Civil Service, under the Civil Service Superannuation Acts. I think I have now given details of the mode in which the Board of Trade exercise control over the management of the three General Lighthouse Authorities as regards works and expenditure.

And have powers of inspection.

25. Are there any other provisions of the Merchant Shipping Act conferring lighthouse jurisdiction on the Board of Trade?—Yes, Sir. By Section 635 the Lighthouse Authorities have to give to the Board of Trade all such returns, explanations or information as the Board may require. By Section 636 the Board of Trade are empowered, on complaint, to cause an inspection to be made as to the condition or management of any light, buoy, or beacon; but they have no power, I should say, to follow up that inspection by giving any order.

26. Have such complaints often been received or ever been received by the Board of Trade?—I do not remember any as to which we have had to hold formal inspections, though occasionally, when somebody has raised a complaint and asked for additional work, we have sent down our Nautical Adviser. By Sections 652-657, certain powers are conferred on the General Lighthouse Authorities with respect to the lighthouses, buoys and beacons belonging to local Lighthouse Authorities. These powers are to be exercised subject to the control of the Board of Trade, and annual reports of the results of their inspections of local lights are to be made to the Board of Trade by such Lighthouse Authorities, and are laid before Parliament, in accordance with the Act. Perhaps the Chairman would like to see that.

27. This is a Parliamentary paper?—This is a Parliamentary paper. By Section 664, each General Lighthouse Authority shall render account to the Board of Trade, who have power to appoint persons to inspect their books.

Constitution of General Lighthouse Authorities

28. Passing now to the constitution of the General Lighthouse Authorities, have you anything to tell us

* See Appendices A., I. and II.

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on that subject?—The constitution of the three General Lighthouse Authorities is given on pages 3, 7 and 9 of the Return made to an order of the House of Commons dated the 11th of August, 1904, which also gives information as to the ages and emoluments of the members and principal officials of the three Boards. I hand in a copy of this Return. The Elder Brethren of the Trinity House consist of 11 honorary and 13 acting members, all of whom are co-opted at meetings of the Corporation. The acting members are elected from amongst the Younger Brethren, and must have served in command at sea on foreign voyages for four years, if in the Mercantile Marine, and must have attained the rank of commander, if in the Royal Navy. The office is held for life, and the Acting Elder Brethren are paid by salary, a sum not exceeding £7,000 being devoted to this purpose in accordance with Section 6 of 3 Geo. IV., c. III.

Trinity House.

29. Can you tell us how the Younger Brethren are appointed? You say nothing about that; perhaps we had better leave that for the Trinity House to deal with?—I think you will get that from the Trinity House themselves. The Commissioners of Northern Lighthouses are constituted as follows, under Section 668 of the Merchant Shipping Act, 1894, that is to say:—(*a*) The two Scotch Law Officers. (*b*) The Lord Provosts of Edinburgh, Glasgow and Aberdeen, and the Provosts of Inverness and Campbeltown. (*c*) The eldest Bailies of Edinburgh and Glasgow. (*d*) The Sheriffs of the Counties of the Lothians and Peebles, Lanark, Renfrew and Bute, Argyll, Inverness, Elgin and Nairn, Ross Cromarty and Sutherland, Caithness, Orkney and Shetland, Aberdeen Kincardine and Banff, Ayr, Fife and Kinross, Dunfermline and Galloway. In addition, the Commissioners may elect the provost or chief magistrate of any Royal or Parliamentary burgh on or near any part of the coasts of Scotland, and the sheriff of any county abutting on those coasts, to be a member of their body. The Commissioners of Irish Lights consist, in accordance with Section 3 of the Dublin Port Act, 1867, of 5 ex-officio members (namely, the Lord Mayor, the High Sheriff, and 3 aldermen of the City of Dublin) and 17 others who are co-opted, all the members taking part in the election when a vacancy occurs. No special qualification is required in the case of the co-opted members, whose period of office is only terminated by death or resignation. I may mention incidentally that under Section 531 of the Merchant Shipping Act, 1894, each of the General Lighthouse Authorities have power to remove wrecks which cause obstructions to navigation in places where there are no harbour or conservancy authorities. I do not know what the eldest bailie means. It may be the eldest in age, but I suppose it means the senior.

Northern Lighthouse Commissioners.

Irish Lights Commissioners.

Wrecks: Removal of,

30. It is a duty imposed upon them, is it not, to remove wrecks which are in the way of navigation?—No, the act merely gives them the power to do so.

31. (*Admiral Henderson.*) They do not interfere within harbours, I think, do they?—No, not in harbours. I was going to say, sir, in explanation—a difficulty always arises about wrecks which are in an approach to a harbour, because the local authorities may not only remove in their limits, but in their approaches, too, and it is very difficult to say what is an approach.

32. (*Chairman.*) There may be a conflict of jurisdiction there?—A conflict of jurisdiction, yes; they generally both decline to act.

33. Naturally, because it involves considerable expenditure, and each wants to throw it on the other?—Yes.

General Lighthouse Fund: Source of revenue.

34. Turning to the question of revenue, will you inform us what arrangements are made for the collection of revenue by the Lighthouse Authorities?—I propose to take that very shortly. I do not suppose you want to inquire into the incidence of the lighthouse charges.

35. No.—By Section 1 (c) of the Merchant Shipping (Mercantile Marine Fund) Act 1898 (61 and 62 Vict., ch. 44), the light dues received in respect of the lights, buoys and beacons under the management of the General Lighthouse Authorities, and the expenditure for carrying on the service are carried to the General Lighthouse Fund, which took the place of the Mercantile Marine Fund. By that Act all the expenses incurred by the General Lighthouse Authorities in the works and services of lighthouses, buoys and beacons, or in the execution of any works, necessary or expedient, for the purpose of permanently reducing the expense of those works and services, were charged on, and made payable out of the General Lighthouse Fund, and it is further provided that that fund shall be applied to the payment of the expenses charged upon it by the Act, and to no other purpose whatsoever.

Light Dues: Arrangements for levying.

36. What are the administrative arrangements for levying light dues?—All three General Lighthouse Authorities are empowered by Section 5 of the said Act to levy light dues on ships engaged in voyages to and from ports in the United Kingdom, the collectors appointed by them being required by Section 648 of the Merchant Shipping Act, 1894 (57 and 58 Vict., ch. 60) to pay over to them the amounts collected to the Paymaster-General as the Board of Trade may direct, and the General Lighthouse Authorities are required by Section 664 of the latter Act to account to the Board of Trade for the light dues received.

By Departmental arrangement—

(1) The dues are collected by officers of Customs only.

(2) The power of levying them in Scotland and Ireland has been delegated to the Trinity House.

(3) The collectors of Customs account to the Trinity House for the light dues collected, but remit the amounts received direct to the Paymaster-General, as instructed by the Board of Trade, and

(4) The Board of Trade remit to the General Lighthouse Authorities the amounts required for carrying on the lighthouse service.

Control and audit of accounts.

37. What provisions are there for the control and audit of the accounts?—The General Lighthouse Authorities render to the Board of Trade quarterly fully detailed and vouched accounts of all expenditure for carrying on the Lighthouse Service in accordance with Section 664 of the said Act. These accounts are compared with the estimates previously sanctioned, and are then audited by the Comptroller and Auditor-General in accordance with Section 679 of the said Act. As soon as may be after the meeting of Parliament the General Lighthouse Fund Account for the preceding financial year is laid before Parliament with the certificate of the Comptroller and Auditor-General. Complaints have been made by the Advisory Committee as to the delay in publishing the yearly accounts.

38. What are the reasons for delay?—Where accounts are presented to Parliament in pursuance of the provisions of an Act, it is not competent to the Board of Trade to publish them before presentation, but should there be an autumn session every effort is made to present the accounts during that session. This was done in 1902 when the accounts for 1901-02 were presented on the 16th December. The Board of Trade have been asked to publish the accounts during the session of Parliament of the year in which each account closes. The General Lighthouse Fund Accounts, however, include dues received for the Basses lights, and expenditure for those lights and for the lighthouses in the Bahamas, Sombrero, and the Falkland Islands. The sub-accounts from these lighthouses cannot, owing to the distance of the places from this country, all be adjusted until some time after August, the month in which Parliament usually rises, and it is, therefore, impossible to complete the audit and to present the accounts before the adjournment. It is, however, the practice to supply members of the Advisory Committee with copies of the unaudited accounts (which are practically correct) for their own information before the annual meeting to discuss the estimates for new works is held.

39. Can you hand me copies of accounts of the General Lighthouse Authorities?—I hand in copies of accounts of the General Lighthouse Fund for three years, 1902-3, 1903-4, and 1904-5. Of course, the last one is not quite complete—I mean the one for 1905-6 is not complete.

General Lighthouse Authorities: Objections to constitution.

40. Have any objections come before you respecting the constitution of the Lighthouse Authorities?—Yes. In the case of the Trinity House it has been objected that the Elder Brethren are self-elected, and that several of them are of an advanced age. On the other hand, all the members have had nautical experience, and if the Corporation had had power to grant pen-

sions the age difficulty might have been avoided. So far as the Board of Trade know, the work has been done efficiently.

41. As regards the constitution of the Northern Lighthouse Commission?—The objection has been raised that it is only by accident that any of them could have any nautical experience, and that the number of members is too large, several of them never attending the meetings. It has been objected that a body consisting of lawyers and municipal representatives is not a suitable one to deal with nautical matters. The Board of Trade have no reason to complain of the way in which the Northern Lighthouse Commissioners have conducted their business, but there is no doubt that they suffer from the absence of nautical advice. Sometimes they have had to come and ask our Nautical Adviser to give them advice about a ship or a quay or a new lightvessel. It is to be remembered that, unlike the acting members of the Trinity House, the members of the Northern Lighthouse Commission are unpaid.

42. Then as to the Irish Lights Commission?—The members are also unpaid. As regards the constitution, the objection has been raised that bodies which administer public funds should not be self-elected, and that no qualification is required in those elected. Complaints have also been made from Ireland that most of the members are Dublin men, and that the large ports of Ireland, such as Belfast, Waterford, Cork, Derry, and Limerick, are not represented.

and Administration of,

43. Do the Board of Trade consider that the administration of the Irish Lights is satisfactory?—Not so satisfactory as in the case of the other two Lighthouse Authorities.

44. Does that judgment rest upon general impression or upon specific failures?—It rests upon a certain number of cases where they hardly acted in a business-like manner. They have forgotten to submit estimates beforehand for us to sanction. I do not know whether it would be convenient or whether you wish to go into that. I have a list here of cases in which we have had to complain of a want of business capacity. These are none of them very strong cases individually, but there is a number of them. They do not do the thing quite in the same way as the Scotch or the Trinity House people do.*

45. Have you received any complaints respecting administration?—The more general complaints which have been received by the Board of Trade from time to time with respect to the administration of the three General Lighthouse Authorities have been that the Authorities are not in touch with the shipping interests, and do not take the trouble to ascertain what their navigational requirements are. It is further urged that the shipowners who contribute the money should have a voice in the expenditure. It was to meet this objection that the Advisory Committee was established in the year 1899, but it would, no doubt, have been more desirable if, instead of establishing a voluntary body, it had been possible to provide that representatives of the shipping interest should be placed on the General Lighthouse Authorities. Where there are statutory bodies to discharge certain duties, it may be a doubtful policy to call together a voluntary body to share the responsibility. The effect might be to weaken the sense of responsibility on the part of the statutory bodies.

Advisory Committee: Reason for establishment of,

46. Were these objections to a voluntary body considered by the Board of Trade at the time?—Yes. There seemed to be considerable difficulty in securing representatives of the shipping interest on the General Lighthouse Authorities. In the first place legislation would have been necessary, and secondly it would be difficult to form a satisfactory register of shipowners—more particularly for Scotland and Ireland. There are not a great number of shipowners in Dublin, and the people who use the Irish lights are probably the Liverpool and Glasgow and Bristol people. It would be very difficult to get any of them to go on to an Irish Lighthouse Authority meeting in Dublin. That was one difficulty. There would be no difficulty in getting it at Trinity House.

47. There are cases in which the representation of shipowners is provided for. It is provided for Pilotage Committees, for instance, is it not?—Yes; under the Merchant Shipping Act, 1894, shipowners may be represented on the Pilotage Committee of the Trinity House and on other pilotage authorities. Is is provided by Section 577 of the Merchant Shipping Act, 1894, that the Board of Trade may, by provisional order, make provision for the direct representation of pilots and of shipowners on pilotage authorities. I have here a Provisional Order which was made for such representation on the Pilotage Committee of the Trinity House. The shipowners on the Committee are selected from a list of payers of dues kept by the Thames Conservancy; but no such list would be available for elections by payers of dues of representatives on the English, Scotch and Irish Lighthouse Authorities separately. Of course, you might take the list of shippers who pay light dues, but it would be a very large list. Of course, it would come from all parts of the United Kingdom. Perhaps it would be rather difficult to arrange for their voting, and it would be specially difficult to make a separate register for Scotland and Ireland.

48. In the case of the Advisory Committee some provision is made for the representation of the shipowners by trusting to various bodies connected with the shipping interest the appointment of such representatives?—Yes.

49. Do you think that would be practicable, or would it be contrary to precedents to make a provision of that kind by Act of Parliament?—I believe it is rather difficult to arrange for the election of a central body by representation of non-statutory bodies?

50. Yes?—They might amalgamate or be dissolved at any moment, without going to Parliament.

General Lighthouse Authorities: Objections to constitution of,

51. Have any other objections of a general character been taken to the present system?—It has also been urged by the objectors to the present system that the existence of three Lighthouse Establishments adds very much to the expense of maintenance, and that the work could be done very much more economically by one Central Authority in London. This last objection is urged by the shipowners; but it would seem doubtful whether some of those who criticise the Scotch and Irish Boards would be anxious to see the administration transferred to London. Another objection has been urged that the Lighthouse Authorities are apt to suggest works which are not wanted, in order to give employment to their staff. This has been specially suggested in the case of Northern Lighthouse Commissioners, whose Engineer is not paid by salary, who might therefore be personally interested in suggesting new works which are not urgently required.

52. The Board of Trade have no reason to believe that suggestion well founded?—They are convinced that there is no ground for such a suggestion as against the Engineer of the Northern Lighthouse Commissioners; but the Northern Lighthouse Commissioners have tried to put the Engineer in such a position that the suggestion could not be made. The difficulty is that the Engineer is a member of a celebrated firm, the members of which, as well as their staff, are engaged in other work besides the work of the Northern Lighthouse Commissioners. This would prevent the possibility of putting the Engineer on a fixed salary and engaging his whole time, and it would be still more difficult to require him to have a separate staff always engaged on lighthouse work. The Northern Lighthouse Commissioners have for some time past been anxious to establish a system which would prevent any suspicion that the Engineer was interested in recommending that new works should be undertaken. The Board of Trade have had before them a scheme from the Commissioners, under which the Engineer would be paid for the next five years a fixed sum (inclusive of engineer's fees and remuneration of his staff) based on the amount expended on an average of the last ten years; but the consideration of the scheme has been postponed pending the sitting of the Royal Commission.

Local Lights Questions as to provision of, out of General Lighthouse Fund.

53. Have any questions ever arisen as to what local lights are?—Yes; we have had a good many. The Board of Trade have on several occasions received petitions from fishermen and others for the establishment of such lights, and the matter has been referred to the General Lighthouse Authority interested, the answer sometimes being that, though the light would be useful to those using a particular port—most of whom, being fishermen, do not contribute to the General Lighthouse Fund—it would be no benefit for passing traffic, and therefore should not be provided at the expense of the General Lighthouse Fund. It has therefore been urged by the General Lighthouse Authorities that such lights, if required, should be undertaken by some local authority. But it generally happens in such cases that there is no local lighthouse authority.

* See Appendix A, IV.

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54. What view has been taken on this subject by the Board of Trade?—The Board of Trade view has been that the General Lighthouse Authorities are responsible for the lighting of the whole coast of the United Kingdom, except in places within the jurisdiction of a local Lighthouse Authority. There seems to be nothing in the Act to suggest that the Lighthouse Authorities are only to expend money for the benefit of passing trade. Of course, where there is very little shipping, the need of the light may be less urgent, and the erection might reasonably be postponed until more important works have been erected. There is something to be said for the view that the lighting of places navigated by shipping paying light dues, should take precedence over lights which are to be used only by fishing boats which do not pay dues, but I do not find anything in the Act which would prevent the Lighthouse Authorities from erecting lights for the benefit of fishing boats. Of course this view which has been taken by the Lighthouse Authorities as to the fund only being spent on passing trade is shared by the Advisory Committee. We had a case last year in connection with the new Fishguard route to Ireland. I think it was last year or the year before that a light was asked for by the Great Western Railway Company off Strumble Head, and the view of the Advisory Committee was that that light, being for the advantage of a particular railway, should be paid for by the railway company. But the proposed site was situated a good way from Fishguard Harbour, in the open sea, and we had evidence that the light would be used for trade going to the coast of Wales—Cardigan Bay. The Great Western Railway were asked to contribute, and they have contributed £2,000 out of an estimate of £12,000. That was two years ago. Last year a somewhat similar proposition came up on the other side of the Channel. There is a light maintained by the Irish Lights, the Tuskar Light, a few miles off Rosslare, but when a ship has passed there are some difficult shoals, and the railway companies, the Great Western of England and the Irish Railway Company, were very anxious that four lighted buoys should be put down there. Strong objection was taken to this, both by the Trinity House and the Advisory Committee, on the ground that it was a local matter, and our Nautical Adviser thought that the difficulties could be overcome by an arrangement of lights on the pier and on the land. The railway people are still urging for the sanction of the lights, and they have now got a proposal before the Board of Trade that one lighted whistling buoy should be put there at the expense of the railway companies for a time, at any rate. But it is evident they hope and expect that if it is found to be successful it will be maintained in future out of the General Lighthouse Fund.

Strumble Head Light.

Rosslare lighted buoys.

55. How did that proposal originally come before you; was it put forward by the Irish Lights themselves?—Yes, they were very strongly in favour of it. Four lighting buoys were proposed at first, and now they want to have one, the railway companies being prepared to pay for it themselves.

56. The proposal was made by the Irish Lighthouse Authority but resisted by Trinity House and by the Advisory Committee?—Yes, and the Board of Trade also thought it was more of a local light, and that the difficulty could be overcome by an arrangement of lights on the pier or on the land. There is just one other suggestion I have got to make, and that is that the Board of Trade think that under the Act it is clear that where there is no local lighthouse authority, the General Lighthouse Authority are responsible, but if there is any doubt the Board think that the point should be made clear.

57. If, however, on that point, both the Lighthouse Authorities themselves and the Advisory Committee take a different view, the Board of Trade having no power of initiative, it seems very probable that no such proposals would be brought forward or carried into effect?—Quite so. But there is a very strong feeling amongst certain people that we ought to be able to initiate, but I am afraid that is not a feeling that we share. We are not anxious for the power to initiate; we think it would increase the cost.

58. There is nothing else that you desire to add to your evidence-in-chief?—No, that is all.

Control exercised over, by General Lighthouse Authorities.

59. (*Colonel Herbert.*) I understand from what you say that in places where there is a local lighthouse authority there practically exists a dual authority, that there is the local authority itself and the Trinity House or the General Authority exercise a sort of control over that; so I understand it?—Yes, there is a certain amount of control certainly over the local lighthouse authority. They cannot put up lights without the permission of the General Lighthouse Authority. If, say, a place on the coast of Yorkshire or Lancashire were to put up a light at the end of a pier, they have to submit the light for the approval of the Trinity House. That is generally done under a Local Act which authorises the pier.

60. Then, in fact, there is a dual authority with respect to that part of the lighting of the coast?—Yes, to a certain extent.

Trinity House: Dual function of.

61. Then I also understand that the Trinity House itself exercises a dual function?—Yes, that is so.

62. As the lighting authority for England and as a revising authority for the other parts of the United Kingdom?—Yes.

63. Now with regard to the local authorities, where they exist. How do they derive funds for carrying out their work?—That is generally done under some private Act, some local Act. If you take any harbour on the coast you will find that they have several local Acts, probably and possibly some Provisional Orders which are confirmed by Act of Parliament authorising them to take dues and to execute works.

64. As Harbour Boards do generally, I understand?—Yes. What I meant to say was that the local lighthouse authority is generally the Harbour Authority.

Its control over Scotch and Irish Lights.

65. Now with regard to this function of Trinity House as to Scotch and Irish lights; I understand that the Scotch and Irish Authorities can only approach the Board of Trade through Trinity House?—That is so for new lights, for new works.

66. For other purposes, can they?—They can.

67. Ordinary administrative work?—Ordinary administrative work they can.

68. They go straight to the Board of Trade?—Yes, they go straight to us.

69. But for anything in the nature of new works they have to get the concurrence, practically, of Trinity House, or get them overruled by the Board of Trade?—Or get them overruled by the Board of Trade, yes.

70. (*Chairman.*) Is that the provision of an Act of Parliament?—Yes.

71. The control of the Irish and Scotch lights in respect of new works by Trinity House is provided by Act of Parliament?—Yes, that is by Section 640 of the Merchant Shipping Act.

Lighthouse Powers: Definition of,

72. Is there a definition of new works in that Act?—Well, it is a definition of lighthouse powers, and lighthouse powers are "(*a*) To erect or place any lighthouse, with all requisite works, roads, and appurtenances; (*b*) to add to, alter, or remove, any lighthouse; (*c*) to erect or place any buoy or beacon, or alter or remove any buoy or beacon; (*d*) to vary the character of any lighthouse or the mode of exhibiting lights therein." Those are described as lighthouse powers. It goes a little further than new works, perhaps. "New works" is not an expression which is mentioned in the Act.

New Works: Procedure for initiation of,

73. (*Colonel Herbert.*) Referring to another part of your evidence, in which you say the Board of Trade have no power of initiating expenditure, I gather that the channel of communication, taking the case of an Irish lighthouse or proposed lighthouse, would be something as follows:—An Irish Member of Parliament might attack the President of the Board of Trade and would receive the answer that the Board of Trade has no power of initiating expenditure, but the Board of Trade would then make a suggestion to the Irish Authority. The suggestion would have to be developed into a scheme by the Irish Authority and referred to Trinity House, and Trinity House would have to move the Board of Trade?—Yes.

74. The Board of Trade might concur, or otherwise, and correspondence would ensue, and in fact you get a sort of maelstrom of correspondence which may arise out of the fact of there being these two different authorities?—Yes.

75. With unequal powers?—Of course, the suggestion of the Board of Trade is not sanctioned by Act of Parliament, but, as a matter of fact, it has been done occasionally. It leads to great difficulties.

76. Then in such a case, carrying that idea on, would the Treasury have any say in the matter?—No

77. None at all?—No. The General Lighthouse Fund is now quite free from Treasury control. It used to be subject to Treasury and Parliamentary control, because money was paid by the Treasury into the old Mercantile Marine Fund, and certain expenses were paid out of it, but since the Act of 1898 the Fund has been entirely separated, and nobody has any control except the Board of Trade.

78. But the Admiralty might be brought into a discussion of that sort. Is the Admiralty ever called in as adviser?—No, I do not think so. I do not remember any case. I think, perhaps, in particular cases we may have consulted the Admiralty.

79. The coastguard administration of the Admiralty has nothing to do with lights?—It has nothing to do with lights, no; we have a great deal to do with them on other matters.

80. My point is to see to what extent we get one of those things, which, I daresay, you have seen in your experience as I have in mine, where a number of departments, greater and less, are all brought in, till the object which was originally in view is lost sight of altogether.

81. (*Chairman.*) With reference to that point, supposing a representation were made to the Board of Trade that a light was required on some particular part of the coast, say, of the Irish coast, would not the ordinary procedure of the Board be to refer those that made that representation to the Irish Lights?—Yes, that is the rule; and sometimes we have sent the application on to the Irish Lights for their observations. I think both courses have been adopted.

82. (*Colonel Herbert.*) I think you state here that the Board of Trade would make a suggestion to the Irish Lights?—Yes.

83. That might be done by sending on the original persons or making a special suggestion, but it comes to the same; there is that additional step in the procedure.

84. (*Sir Frank Adam.*) If a suggestion were made and proposed by the Local Authority or the Irish Authority in this case, the Board of Trade have no power to go further?—No, no power to go further; but we might give a hint that if they applied we should be willing to sanction. We have done that, I think, sometimes, but it is not contemplated by the Act.

Representation of Shipping Authorities on Lighthouse Board: Advisability of,

85. (*Colonel Herbert.*) I see the Board of Trade is rather against the idea of the shipping authorities being brought in in any greater degree than in an advisory capacity?—Oh, I do not see that there would be any objection to shipowners being represented on, say, a Committee of the Trinity House for management. I think it would be a little difficult to arrange it in Ireland or Scotland, but I think it might be done in the Trinity House just as shipowners and pilots are represented for pilotage purposes.

86. Would not that be the case if Trinity House or something equivalent were made a department of the Board of Trade managing the whole of the lights throughout the Three Kingdoms?—I am not prepared to suggest that.

87. I am really asking whether it would not be the same?—I think if there were the Central Authority like the Trinity House managing all the light it would be desirable that shipowners should be represented on it in some way more directly than they are at present.

88. Do you think that such a body could be brought in with the general administration of the Board of Trade, as a sort of department of the Board of Trade?—No; I would rather not answer that question; I have not got any instructions on that point. It is a point of rather high policy.

89. Exactly. I say it is a question of policy, but it is likewise a question of administration?—Yes.

90. (*Admiral Henderson.*) I was going to ask you that question myself when you proposed to make suggestions, because I suppose the Board of Trade having a great experience, may offer the Royal Commission suggestions.

91. (*Chairman.*) I understand you have no instructions to express an opinion upon broad questions of policy?—I have no instructions at present.

92. You do not care to express an opinion of your own?—No; my idea was to start the evidence by giving information as to the existing state of things.

93. (*Admiral Henderson.*) And to wait?—And to wait.

94. I may say they would be forthcoming if we want them later?—I think they would express their opinion on any suggestion the Royal Commission laid before them. I do not think they would initiate any suggestions. *Hon. T. H. W. Pelham*, C.B. 6 Nov. 1903.

Contracts: Board of Trade control leads to uniformity.

95. (*Colonel Herbert.*) Now, with regard to the questions of contracts. I see the Board of Trade exercises a control over that. Is that rule at all occasioned by the fact that there are three separate Lighthouse Authorities, and therefore it is necessary to bring them to accord?—Of course it has that effect. For instance, the Irish Lights would sometimes suggest that they should try experiments and spend so much on experiments on a certain light or buoy, and we should refer to the Trinity House and ask them if they had made experiments and what their experience has been. So it does lead to uniformity.

96. It does lead to uniformity, but it was not established for that purpose?—No; I think not.

97. (*Mr. Ennis.*) I take it that you regard this question of lighting the coasts of the United Kingdom as a question of great national importance?—Oh, certainly.

98. And in view of the great volume of trade of the country, and of the importance of the lighting of the coasts, that we should be entitled to expect a high degree of efficiency with regard to that?—Certainly.

99. I notice in the first paragraph of your evidence you state what you have stated verbally that you do not propose to make any suggestion for the alteration of the existing authority, but I take it from what you have said that that is not to be interpreted as meaning that you consider the existing authority is perfect or that changes with regard to them might not possibly be desired?—Oh, no; certainly I think changes are desirable, and I think probably that is the reason why the Commission was appointed. It was felt that the whole thing should be gone into.

Advisory Committee:

100. Well now, with regard to the Advisory Committee. I take it that the Advisory Committee might be regarded somewhat in the nature of a makeshift arrangement, of an arrangement which was designed to give a certain amount, not of power—because you have told us they have no statutory powers whatsoever—but a certain degree of authority to suggestions made on behalf of the shipping community and the underwriters, and so on, that that body was established for that purpose?—That was so; a sort of body of expert witnesses.

101. But they have absolutely no statutory powers, and any suggestions made by that Committee they are not in a position to carry into effect in any way?—No.

102. And therefore if it should be found possible later on to establish the General Lighthouse Authorities on an amended basis which would give adequate representation to the various interests affected on the Boards of the General Lighthouse Authorities, there is no reason why that Advisory Committee should continue its existence?—No, quite so.

103. Where can I obtain the names of the two shipowners who represent Ireland on the Advisory Committee? Is it any bar to their being appointed as members of that Advisory Committee that they should also be members of the Lights Boards of the country?—No.

Election of Irish Members of,

104. In Ireland there are, as a matter of fact, no shipping companies. I mean there are no companies of shipowners belonging to Ireland proper?—There are very few, I think.

105. And therefore the two members representing Ireland have been elected by the Executive Council of the Chamber of Shipping?—Yes, that is so.

Consideration of urgent New Works by,

106. It is stated here in your evidence that there are cases in which urgent new works are submitted to the Board of Trade for approval after the yearly conference with the Advisory Committee has been held. These are sanctioned by the Board of Trade if considered urgent, but proposals for large expenditure are laid before the Advisory Committee by correspondence for their observations. How do the Advisory Committee deal with such proposals laid before them by correspondence? Do they meet for the purpose?—No; I think, as a rule, they do not meet for the consideration of single cases.

107. No, simply invite opinions?—I think that the opinions are obtained from the members of the Committee and forwarded by the Secretary to the Board.

108. The constitution of the Lighthouse Authorities with regard to Trinity House and with regard to Irish

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Lights differs very considerably from the constitution of the Northern Lights?—Yes.

109. As to the constitution of Trinity House, it is a body in which the appointments are made by co-option?—Yes.

General Lighthouse Authorities: Constitution of,

110. The Irish Lights is a similarly constituted body?—Yes.

111. I should like to ask in regard to that, the Irish Lights consist of 17 members, 5 ex-officio members and 12 members who are co-opted?—Yes.

112. Now were those 12 members who were co-opted originally co-opted by the five?—There is an old Act of Parliament. The Irish Lights used to be part of the Port of Dublin Commissioners.

113. Quite so?—I cannot exactly remember the provisions of the Act; I have read them, but I do not exactly bear them in mind at the present moment. I think that that Act of Parliament named certain people; they were named in the original Act.

114. They were not originally co-opted by the five ex-officio members?—No.

115. Then, as a matter of fact, the Irish Lights Board, as at present constituted, is practically a Board which was originally the Dublin Port Board, as you say, and which has existed ever since by co-option?—Yes.

116. Therefore, assuming that any conflict of interests should arise as between Dublin and other ports in Ireland, the other ports of Ireland have no representation on the existing Lighthouse Authority?—No, but they do not have any in England or Scotland either.

117. But it does not necessarily follow that in England the constitution of the Trinity House is perfect either?—Oh, no.

118. And with regard to both the constitution of the Lights Boards and of the Advisory Committee, the Advisory Committee is a Shipowners' Committee?—Yes, practically.

119. And therefore the trend of both Boards would be, so far as I can judge, as you have stated in the latter portion of your evidence, that the Advisory Committee and probably the Lighthouse Authority would be inclined to object to the erection of new works, new lighthouses, erections of lights, buoys or beacons, which would benefit any interest except the interest of passing trade?—Yes, that would be the tendency.

120. That is to say that the interests of shipowners lie on the one hand and the interests of fishermen, as another class, lie on the other hand?—Yes.

Advisability of providing for representation of various interests on,

121. And that, in the constitution of a properly constituted Lighthouse Authority, it would be only reasonable that the interests of the fishermen and the interests of the fishing industry, which is, I take it you will agree with me, a very valuable industry, and an industry capable of large developments in some parts of the country?—Yes.

122. That the interests of the fishing industry have a right to be consulted?—Yes. I am not prepared to express an opinion as to whether they should be represented, having regard to the fact that they do not pay dues.

123. Yes, I quite grasp the difficulty which would arise in that connection, because I assume the contention would be on behalf of the shipping community that the shipping community pay the light dues?—Yes.

124. And that it would not be fair to saddle upon them the cost of erecting lights for purposes other than the purposes of their trade?—Yes, that is so.

125. But still, as a general principle, I take it you would be prepared to say that the rights of the seafaring community are of great importance?—Oh, of great importance.

126. And that as a national asset the life of a sailor is of greater importance to the nation than the life of a soldier. It is more difficult, I would say, to provide an efficient sailor than an efficient soldier. I mean that the life of the sailor, I take it, is a greater national asset than the life of a soldier. It is more difficult to procure a trained sailor than a trained soldier. But, in any case, you agree that the lives of the seafaring community are of very great importance?—Yes, certainly.

127. And that anything which would tend to save the lives of the seafaring community, whether in the interests of passing trade or the fishing industry or any other industry is desirable, and that public expenditure should be made upon that from whatever source such expenditure might be derived?—Perhaps I might mention that a great deal is done in Ireland and Scotland by the Congested Districts Board, which puts up small piers, and which puts up lights to help them.

Congested Districts Board: Lighting work of,

128. I only instance the fishing industry as one branch of the question, that it would be desirable that all precautions should be taken for the safety of human life?—Yes.

Wrecks: Causes of,

129. Can we have anything valuable as to the wreck statistics on the coast of the United Kingdom and the annual loss of life through wreck?—There is a return of wrecks published every year. I think that it would want looking out a good deal. It has been very often said by somebody who wants a light that there have been 50 wrecks in a particular place. Then it is discovered, when you go into it, that a great many of them were in the daytime, and that other ones could not have been helped if there had been a light at the particular spot. It has to be very carefully gone into.

130. I mean, is it the general impression of the Board of Trade that there would be a preventible loss of life by the erection of more lights, were sufficient funds available?—I should think that the coast of England is pretty well lighted, and possibly the coast of Ireland. I should think there is a great deal of room for more lights in Scotland.

131. (*Sir Frank Adam.*) Have you in your mind, in saying that, parts of the coast of Scotland where there is no great traffic?—Yes, principally, perhaps.

Harbour Authorities: Representation of, on Lighthouses Boards.

132. (*Mr. Ennis.*) With regard to the difficulty that you spoke of as to the representation of the shipping interest, and I assume other interests if necessary, on a reconstituted Lighthouse Authority, you expressed an opinion as to the difficulty in Ireland on that point. Would not that difficulty be overcome by the election on a General Lighthouse Authority of representatives of the Harbour Boards in Ireland which possess statutory existence?—Well, I do not know, sir, how that would be. It has never occurred to us, I think, at the Board of Trade that the harbour people are the people who ought to be represented on the Lighthouse Authority, because the harbour people have got their own lights to look after. It would bring representation from different parts of the country, no doubt.

133. But, so far as shipowners are concerned, no doubt the harbour people have their own lights—their internal lights?—Yes.

134. But take, at the same time, this case to which you have referred. I did not intend to take any particular case, but as you have spoken of the Fishguard route, and I have travelled by it a couple of days since, I should like to ask you as to that case. A local authority, of course, may deal with the lights within their own harbour, but it is, in my opinion, very doubtful—in fact, I know the coast there thoroughly well; I have been cruising about it all my lifetime—whether lights on the pier would be sufficient to guide vessels in through the very intricate channels that lie between the south end of the Long Bank and the harbour?—I think that our Nautical Adviser, Commander Frederick, stated that he thought that if a light were still maintained as they used to have it on the land it would give a line to the light on the end of the pier, which would be of use when the Tuskar Light was once passed.

135. But the point I wish to make to you is this: assuming that it is not a question of the incidence of the cost of that light, but assuming that the local authority were entitled to put a light on the end of their pier—the Harbour Commissioners would light their own harbour—would it not also be desirable, in the interest of the shipping trade coming to their port, that the lighting arrangements outside should be efficient?—Oh, certainly.

136. I mean a Harbour Authority might conceivably have admirable lighting arrangements within their harbour which would be rendered nugatory by the want of proper lighting arrangements outside in the area in which there is no authority?—I think there is a hiatus between the harbours and the lights maintained by the General Lighthouse Authorities. I mean that I think there is a case where a light is considered desirable, and it is impossible to say who ought to do it.

137. (*Admiral Henderson.*) I would like to ask one question. Do not the vessels plying between Fishguard and Rosslare pay light dues to the General Lighthouse Fund?—Oh, yes, certainly.

138. That is a decided point, if they pay they should be provided with essentials?—Yes.

Advisory Committee: Change of present system desirable.

139. (*Mr. Ennis.*) Then it is stated in your evidence also that legislation would be necessary to effect a more complete arrangement or a better arrangement than the Advisory Committee?—Yes.

140. But would not, in a matter of such importance, legislation be desirable?—Oh, certainly. I think I may mention that when the Advisory Committee was under consideration there was a proposal to bring into being a voluntary body rather different from the Advisory Committee, and I think there is no harm in my stating that I rather protested against it. I said it would be very much better if Parliament gave power to the Board of Trade to nominate three members, three shipping representatives on the Trinity House and three representatives on the Scotch Board, and three on the Irish Board. The remark of Mr. Ritchie, the President of the Board, was: "I wish you had suggested that last year when we had the Bill of 1898 before the House." The question had not arisen then.

General Lighthouse Fund: Delay in publishing accounts unavoidable.

141. There is just one question more I should like to ask, and that is with regard to the accounts, the expenditure for lights and dues. The accounts are not laid, generally speaking, we will say, at an early date on account of the difficulty of obtaining returns from the Basses Lights and the Falkland Islands, and some others?—The Bahama Lights.

142. Some other foreign lights?—Yes.

143. Would it not be possible to lay the accounts in two separate portions; to lay the accounts of the United Kingdom separately, and a smaller account for those foreign lights when received?—I am afraid that the Auditor-General would not look at them till they were completed. They could not be audited accounts.

Colonial Lights: Maintained by General Lighthouse Fund.

144. (*Admiral Henderson.*) May I ask whether it would not be possible to get rid of these lights altogether, and turn them over to the local authorities? Why should we manage these lights, which really belong to the communities interested, with some composition, some arrangement made?—I am not quite sure, Sir, that I understand the question.

145. Would it not be possible to turn the Basses Lights, the Minicoy Light, the Falkland Islands Light, and the Bahama Islands Lights, over to the people of the Falkland Islands, the Bahamas and Ceylon?—Well, sir, all I would say about that is that that is a bargain with the Treasury in 1898. They made great concessions, to the advantage of the General Lighthouse Fund and the advantage of the shipping interest, and they made it a bargain that all lights to which England in any way contributed should be taken over by the General Lighthouse Fund, and paid for out of that in future. As regards the Basses and Minicoy, it would not be at all difficult, because tolls are levied on ships that use those lights, and they support themselves.

Collection of dues for,

146. (*Sir Frank Adam.*) Where are they collected, may I ask?—They are collected at Colombo, at Mauritius, at the Straits Settlements, and in the United Kingdom; I think that is all.

147. (*Mr. Ennis.*) But the expenditure on the lights of the United Kingdom enormously exceeds the expenditure on those foreign lights?—Yes.

148. This is merely a small item?—Yes.

149. In your opinion, would it not be desirable, if at all possible to accomplish it, that the accounts of the expenditure on the lighting of the coast of the United Kingdom, which are a matter of such importance to everybody concerned, should be furnished at as early a date as possible, and that if it were possible to arrive at the arrangement I suggest, that is, segregating the expenditure into two separate accounts, or any other arrangement that might be made which would facilitate the return, would be desirable?—I think that is worth considering. I will not say more than that, because I think it would involve several other considerations, which I have not given attention to, as to how far it would be possible.

150. (*Chairman.*) Do you think the delay in the making public of the accounts gives rise to any serious inconvenience?—Well, I think it would be a little unfair to the Advisory Committee, were it not that we meet them by sending them the unaudited accounts.

151. (*Sir Frank Adam.*) Is it within your knowledge at the moment whether the dues collected locally in regard to Basses and Minicoy cover expenditure of upkeep?—Yes, they do, and when they were taken over there was a considerable balance in hand, I forget how much, but a large balance in hand, and the light dues have since been reduced there, so that they just pay their way. Sometimes we should have liked to spend money on one or two extra lights on the coast of Ceylon, but we have been advised by the law officers that we have no power to put up any new light outside the United Kingdom at the expense of the General Lighthouse Fund.

New Works: Initiation of,

152. (*Admiral Henderson.*) I want in general terms to know who are the originators of new works, new proposals?—The Trinity House for England, and the Northern Lighthouse Commissioners for Scotland, and the Irish Lights Commissioners for Ireland.

153. Do they receive suggestions from other people?—I can hardly answer that question; I think that their representatives will be able to tell you that. They have often been asked at the Conference by the Advisory Committee, "Have you consulted the shipping interest on this point?" and they sometimes say "No"; at other times they say, "We have had a lot of complaints."

154. What I wanted to get at was whether these Boards do the things off their own bat, or whether they are prompted by the community outside.

155. (*Chairman.*) I would suggest that the question should be put to the representatives of the Board.

156. (*Admiral Henderson.*) Very well. Then the Lighthouse Authorities themselves really resolve themselves into (1) the railway companies, Harbour Boards which are supervised by the Trinity House as to the character of their lights?—Yes.

157. (2) The Irish Board supervised by the Trinity House?—Yes.

158. (3) The Scotch Board supervised by the Trinity House?—Yes.

159. (4) The Trinity House itself?—Yes.

160. And the ultimate control of the whole of these agencies and sub-angencies is the Board of Trade itself?—Yes.

161. A control that is absolute as to new work?—Yes.

162. As to finance, as to emoluments, pensions, and supplies?—Yes.

163. Maintenance; the whole thing?—Yes.

Board of Trade: Work involved by control over Lighthouse Boards.

164. Now, I should like to know what staff you have at the Board of Trade to do that work?—Well, I am not quite sure that I could answer that fully, because in my Department I have two clerks, I think, who give up most of their time to the work, and there is a Nautical Adviser, who advises as to nautical matters, but he also advises as to foreshores and as to matters of navigation, too. Then there is the Finance Department, which is separate from mine, and everything about expenditure goes to them. We refer it to them, or in some cases it is started in that Department, and is referred to us.

165. I see; but does this Finance Department know anything about lighthouses?—They would not know anything about the technical matters. They would be guided by our Nautical Adviser.

166. Would they know anything about supplies?—Yes.

167. And establishments?—Yes.

168. They would?—They have learned it, I suppose, as they have other matters of very much the same character which they have to deal with.

169. Would it be possible for you to give any idea of what work the management of the lighthouses involves at the Board of Trade?—I could state the number of papers, and practically the amount of time that is given by how many clerks; I could get that for you, sir.

Nautical Adviser, Powers of,

170. I think I should like it. Your Nautical Adviser, Commander Frederick, really is superior to all these other Authorities combined; I may say he is the ultimate authority. If you come to a nautical question you go to Commander Frederick, who has the power to override all the other Authorities?—Yes.

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171. He has to decide between them; you have to trust to his judgment?—Yes, almost entirely.

172. He is the one man who ultimately runs the show from the nautical side entirely?—From the nautical side, yes.

173. If you had a question between shipping interests and the Irish Lights or the Trinity Board, or whether the Trinity Board did what they ought to do or did not, he is the ultimate authority?—I should say so, generally.

(*Sir Frank Adam.*) As to the direction of placing new lights, I suppose you mean?

Extent of control over Lighthouse Boards.

174. (*Admiral Henderson.*) No, I mean to say nearly all the questions connected with lighthouse administration. Some are nautical questions; but it is the whole question. The Board of Trade is the ultimate authority for every thing. Not one farthing can be spent, not one sixpence extra can be given to a man's pay; they cannot put an additional brick into a lighthouse or repair it even, without the sanction of the Board of Trade. The evidence given by Mr. Pelham is that you do in some cases give financial authority immediately, without waiting for the return, but it is a fact, and the fact comes back, that this Harbour Department—am I speaking correctly?—in the Board of Trade is the ultimate lighthouse authority for every little bit of work connected with it?—Yes.

175. And that that nautical authority is centred in Commander Frederick, who is their Nautical Adviser?—Yes.

176. (*Chairman.*) Is that quite a fair way to put it?—I am not sure that it is, quite.

177. The Board of Trade possess a veto?—Yes.

178. (*Admiral Henderson.*) It possesses a veto. The Trinity House control over these Irish and Scotch Boards has nothing to do with their administration?—No.

179. Nothing but as to the character of the lights or new work; that belongs to the Board of Trade itself?—Well, it is something more than the character; I think it is the position, and the necessity of the proposed works. It is any exercise of lighthouse powers.

Lighthouse Powers: Definition of,

They have control of lighthouses. Powers are described as erecting or placing any lighthouse, with all requisite works, roads, and appurtenances; adding to, altering, or removing any lighthouse; erecting or placing any buoy or beacon, or altering or removing any buoy or beacon; and varying the character of any lighthouse.

180. Therefore, in coming to the practical work of establishment, the Trinity House itself really, in that sense, has no real power; it must apply to the Board of Trade for everything?—Yes.

181. I see that no expense for lighthouses, buoys and beacons can be paid out of the Lighthouse Fund until an estimate of amount has been approved by the Board of Trade. Does this apply to new work only?—No, almost everything.

182. To almost anything?—Yes.

183. Can we see some of the correspondence and the estimates and matters that are submitted annually by the Trinity House?—Yes, certainly.

184. Do you not consider at the present moment that the Advisory Committee is the fifth wheel of a coach?—Yes, it is somewhat. I do not think it is the best solution of the difficulty.

185. You have handed in those lists that you have spoken about, the principal works objected to by the Advisory Committee, and the works suggested by the Committee?—Yes.

186. We shall be able to see the whole of the establishment charges of these various Boards?—Yes, they will all come out in the accounts.

187. And I think you told me just now that the Financial Department of the Board of Trade was the section that overhauls these estimates?—Yes.

188. Who at the Board of Trade again would be the authority after an Order in Council has been obtained by the Board—if they desired to give effect to any recommendation by any Lighthouse Authority for an increase of salary; who does that at the Board?—The Harbour Department, assisted by the Finance Department. In some cases a small Departmental Committee has been appointed to consider a new scale of salaries.

189. And the same with the question of pensions, I suppose?—Yes.

190. You do not practically carry out, I think you said, Section 636 of the Merchant Shipping Act; that is the inspection. I mean to say do you trust these Boards to do their own inspection, or does the Board of Trade over-inspect them, so to speak?—Well, sometimes Commander Frederick goes down. He went down the other day with the Trinity House representatives to see a light at the Skelligs.

191. That would be at the request of the Trinity House, or is independent action in that respect taken by the Board of Trade?—Generally it is the solution of a difficulty.

192. I mean to say Section 636 of that Act is practically a quiescent section?—I would not say entirely.

193. Board of Trade empowered on complaint. It is after complaint; that would be complaint from an outsider?—Practically we do not do very much under that section, at any rate, except where there is a difficulty and the parties cannot agree, and we sometimes have a conference on the spot.

Local Lights: Inspection by General Lighthouse Authorities.

194. And the same you may say as to Sections 652 to 657, the local authorities; do they often worry you?—Not very often. The General Lighthouse Authorities ought to inspect, and the Trinity House and the Northern Lighthouse Authorities do inspect the local lights. We have had great difficulty with the Irish Lights Commissioners in getting them to discharge this duty. They said they were not bound to send in a report every year.

195. And, again, the finance side carry out Section 664; that is inspection of the books?—Yes.

196. That is done regularly every year?—It is done whenever necessary.

Wrecks:

197. I want to know whether you could give me statistics of the number of wrecks which have been removed by these Boards within the last few years each year?—I will try and find that out, sir.

General Lighthouse Fund is increasing.

198. And their position. The question of the General Lighthouse Fund, has it been increasing?—Yes, it has been increasing, and the Board of Trade are at the present time reducing the rates.

199. Since its institution, since 1898, has it annually met the whole of the demand of the Lighthouse Fund?—Yes, certainly.

Light Dues: Amount leviable.

200. (*Mr. Ennis.*) With regard to that, there is a question I had intended to ask. Is the amount of the light dues regulated by statute; I mean is there a limit to the amount of light dues leviable?—There is a maximum fixed by the second schedule of the Act of 1898, and there is power by Order in Council to alter that.

201. But there is a maximum fixed beyond which you cannot go?—The scale can be raised or reduced by Order in Council. A few years ago the rates were reduced by 12½ per cent., and it is now proposed to reduce them by another 7½ per cent. on the original amount, so as to make it 20 per cent. altogether.

202. There is a maximum rate fixed?—Yes, but subject to alteration by Order in Council.

203. (*Admiral Henderson.*) What I wanted ultimately to get at was whether these various Boards felt that they had a very good round sum coming in for them to deal with?—Oh, yes, they do.

204. I mean whether there is a tendency towards the economy there ought to be in consequence?—I think the Board of Trade has to look after that, because naturally each Authority in England, Ireland, and Scotland would like to see a little more expenditure on their lights.

205. They always do naturally?—And therefore we have to see that the total does not exceed a reasonable sum. We put off certain lights in consequence.

Controlled solely by Board of Trade.

206. Therefore it is correct to say that all the three General Lighthouse Authorities by this Section 648 of the Act of Parliament have no power whatever over the money; the Lighthouse Authorities themselves have no power over the money?—They have no power over the money coming in.

207. And the collection by the Collector of Customs on behalf of the Trinity House in that sense is only a figment; I mean the Trinity House themselves have nothing to do with the money?—No, not with the actual collection of the dues.

System of levying,

208. The Collector of Customs' power of levying it in Scotland and Ireland is delegated to the Trinity House, who shall keep accounts thereof, and shall cause the dues to be remitted to Her Majesty's Paymaster-General in such manner as the Board of Trade direct. As a matter of fact, the Trinity House is only a sleeping partner in the business?—I should not quite say that; they have to assess the dues leviable, when any question is raised.

And liability of ships to pay,

209. The Board of Trade have to levy the rate, have they not; the Trinity House have no power to alter the rate?—They have power to say whether certain ships are liable to pay. A great many intricate questions arise as to whether a ship is liable.

210. But do many questions arise now as to the liability of ships to light dues?—I think there is a certain number; I do not know how many.

211. And to what extent, and who settles it?—The Trinity House would settle it probably, subject to our approval in the case of dispute.

212. You say that, so far as the Board of Trade know, the work has been done efficiently; that is the Trinity House?—Yes.

213. Of course, you do not make any very close inspection of the work, I suppose?—No, there is a good deal of responsibility put upon them.

214. Upon them really?—Oh, yes.

Representation of shipping interest on Lighthouse Authorities: Difficulties as to,

215. Of course, there would be no objection to legislation as to putting on representatives. You say here in one of the paragraphs of your evidence "in the first place legislation would be necessary"; that is to get the shipping community represented?—Yes.

216. There would be no objection to legislation, I suppose?—No; I think there might be some difficulty about it. If you are to keep up the Irish and the Scotch bodies, it would be a little difficult to put satisfactory representatives on their bodies.

217. Now work is really not increasing, is it? There is some question about the Scotch Engineer. The sum approximates the same year after year that you are spending?—I think we are diminishing. I think the new works last year were certainly lower than they have been for some time; in fact, it is just down to the £50,000 recommended by Lord Courtney's Committee.

218. So far as you know, is the tendency of the demands of these Departments increasing, of these various Boards?—I think not.

219. Do you think it is lessening?—I think there is less in Ireland and less in England; I think there is a good deal of work left undone still in Scotland.

220. Practically the coast is sufficiently well lit now not to demand very much new work?—It is rather difficult for me to say that, because so often new lighthouses have to be put up in place of old ones. I do not know how far they are up to date. They are very expensive. For instance, there was a light at Beachy Head; it had to be taken from the top of the cliff and put down below; it was not a new light, there was always a light there, but they had to do the whole light from the beginning.

(*Mr. Ennis.*) There are three lighthouses at Wicklow Head, one over the other.

221. (*Admiral Henderson.*) Is there any reason why fishing vessels should not be subject to light dues? The character of the fishing trade has altered since 1894. It is mainly done by steamers; they go a long way out; and use the sea-going lights to a certain extent.—I am not prepared to express any opinion on that; no doubt there would be very strong opposition to it, I daresay, but I believe it is a pretty lucrative industry.

222. (*Sir Frank Adam.*) I think you said that there would be no difficulty in getting the mercantile marine shipowners represented at Trinity House, but there would be some difficulty on the Irish and Scotch Boards?—I think there would be, sir.

Suggestion as to nomination of members.

223. The Advisory Committee have got two representatives of Irish shipowners and two of Scotch; would men like these not be available?—They are not truly representative in one sense; they are nominated by a body which has its headquarters in England. One solution of it, no doubt, would be for the Board of Trade to nominate representatives of shipping interests to each of the three Lighthouse Boards. That would be one solution.

224. One other question I wished to ask. On all new works and any works connected with lighthouses in Scotland and Ireland Trinity House has control, supervision, subject to the final sanction of the Board of Trade, but is it not a fact that very large sums are sometimes expended on vessels in Ireland or Scotland over which Trinity House has no supervision?—Yes, I think that is so, and I think dwellings for the lightkeepers are not subject to Trinity House supervision.

Trinity House control over Scotch and Irish Boards.

225. And there have been much monies expended by especially the Irish Board, I think, in the past, that have not come before Trinity House at all in connection with providing new vessels or for various purposes?—I think a new lightvessel would come before Trinity House.

226. But not a vessel for navigation in connection with lighthouse work—No.

227. Then when it comes to the Board of Trade for sanction, who has the power of deciding?—That comes for our financial consent only.

228. You want someone to assist you to say whether it is necessary or not necessary, whether the expenditure is extravagant or not extravagant. Would that be Captain Frederick again?—Well, Captain Frederick would be consulted, but we should compare it with other expenditure in the past by other lighthouse authorities, and we should certainly ask questions—we constantly do ask questions—"Why are you paying so much more for this sort of thing than the Trinity House?"

Difficulty of comparing expenditure of the General Lighthouse Authorities.

229. Only one other question: Have you from time to time made comparison in regard to the cost of administration of Trinity House and the Scotch and Irish Boards?—We have, in particular cases—certainly. If they want a new vessel, we should ask why it is that they want a more expensive one, perhaps, than the Trinity House or the Scotch Board. But it is rather difficult to compare the expenditure as a whole one with the other; the circumstances are different.

230. (*Admiral Henderson.*) Can we get a return of the actual number of lights, buoys and beacons, etc., in the United Kingdom—I mean those under the Trinity House, and those under the Irish Board, and those under the local authorities?—You shall have a map showing them all.

231. The Admiralty do a great deal of work, for instance?—Yes.

232. And, as a local authority, they take all the naval ports?—Yes.

Local Lighting Authorities.

233. (*Colonel Herbert.*) Just to make two points clear that I asked before. With regard to my question with reference to local authorities, am I right in assuming that, unless constituted by Act of Parliament, doubts may arise as to whether they are really responsible authorities?—You mean local harbour authorities?

234. I was asking how they derive their authority, and I understand it was chiefly under private Bills, and that sort of thing?—Yes.

235. Except in such cases doubts may always arise unless it is actually by some statutory power?—There are doubts sometimes whether there is a harbour authority.

236. And then we get the difficulties to which you referred?—Yes; but it is not only that, but it is a question where there is a harbour authority and a light is wanted two or three miles outside the harbour limits.

237. As to the limits of those authorities?—Yes.

Functions of Trinity House.

238. Then the other point on which I wanted to make my question a little more clear and full was with regard to the functions of the Trinity House. I would ask it in this way. Am I right in stating that the functions of Trinity House would be as follows:—(*a*), Lighthouse Authority for England; (*b*), controlling authority over Scotch and Irish Authorities; (*c*), the sole authority for levying dues? I did not ask that last point?—Yes; I think that is it.

239. Those would be broadly the functions of Trinity House?—Yes.

Expenditure on experiments.

240. (*Mr. Ennis.*) With regard to expenditure, have the General Lighthouse Authorities or the Board of Trade power to expend money for the purpose of experiment, or for offering inducements to inventors to perfect and improve the existing lighting apparatus?

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—Yes. We are sometimes asked to expend money on experiments. We have been asked lately by the Admiralty to expend money in fitting up vessels with bells, and £1,000 was put down last year. I think that before the Admiralty applied the Trinity House applied to spend £1,500. There was very strong opposition to this, and the President said it had better drop, for the present at any rate. In the meantime the Admiralty wrote and asked us to sanction something of this sort, and we made some inquiries as to how much they wanted to spend. They wanted a few bells put up; we thought it would be very small. It turned out to be £600, and the President of the Board of Trade said he could not sanction that at present.

241. But the Board of Trade have power, should they wish to do so, to expend money for this purpose?—I think so.

242. (*Chairman.*) That was a case where the Lighthouse Authority desired to try some experiments, and the Board of Trade, after hearing what the Advisory Committee had to say upon the matter, decided that such experiments must be postponed?—Yes.

General Lighthouse Authorities Responsibility of,

243. With a view of clearing up a point raised by Admiral Henderson, I should just like to ask you whether you consider it would be a correct way of putting the matter to say that the veto of the Board of Trade deprived the Lighthouse Authorities of all real administrative power?—No; I think not. I think that they have considerable latitude in their administration and in their constitution.

244. The whole power of initiative with regard to new works rests with them in the first instance?—Certainly, as regards England.

245. So far as the veto of the Board of Trade is exercised, it is, of course, exercised to some extent upon the advice of their expert, Captain Frederick?—Yes.

246. But would you say that, in the majority of cases it was not rather questions of finance that entered into the decision of the Board as to whether a new work should or should not be undertaken? That is to say, that in general it might be admitted that several works were in themselves desirable if there were unlimited funds to carry them out, and that the ultimate decision whether a particular work shall or shall not be carried out depends very often upon considerations of the expenditure proposed during any given year?—That is very often the case, indeed. But there are other cases where the utility of the light is disputed.

247. Then, as to the ordinary administration, so far as the maintenance of lights on the coast is concerned as opposed to the erection of new works, that rests entirely with the Lighthouse Authorities, does it not?—Yes.

248. The Board of Trade does not interfere with them? —Yes; there is a general financial control. They have to bring their estimates and their contracts for approval. Control exercised over, by Board of Trade.

249. But that financial control is on all fours with the financial control exercised by the Treasury over other Departments of the Government?—That is so.

250. It is greater as to new works?—Yes.

251. And, to some extent, as to contracts?—Yes.

252. But in general it is comparable, and you would hardly be prepared to say that the powers of the Board of Trade were such as to destroy the administrative responsibility of the Lighthouse Boards?—Of course not. We have tenders submitted to us, and very often one of the Lighthouse Authorities says, "We will not accept the lowest." They want to accept a higher one, we want to know why, and we have correspondence upon the subject. It has happened that the Irish Lights Board want to adopt a higher one because it is from an Irish firm, or something of that sort.

253. The control of the Board of Trade to a large extent resolves itself into this—that the Lighthouse Authorities are compelled to give reasons for what they propose to do?—Yes.

SECOND DAY

Friday, 9th November 1906.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.

Captain C. Bigham, C.M.G. (*Secretary*).

Mr. Arthur Owen, called in; and examined.

Mr. A. Owen. 9 Nov. 1906.

254. (*Chairman.*) You are the Secretary of the Trinity House and appear here to give evidence on its behalf?—Yes, Sir.

Constitution of Trinity House.

255. Will you tell us to begin with by what charters the existing constitution of the corporation is defined? —The corporation is defined by charters granted by James II. in 1685, and the supplemental charter of Queen Victoria in 1871. By the Merchant Shipping Act of 1854 (consolidated with other Merchant Shipping Acts in 1894) the corporation was appointed as the "General Lighthouse Authority throughout England and Wales and the Channel Islands and the adjacent seas and islands, and at Gibraltar," and under this Act the financial control of lighthouse revenue, which had hitherto been vested in the corporation, was transferred to the Board of Trade.

256. The corporation consists of Elder Brethren and Younger Brethren?—That is so, Sir. Under the original charter of James II. the number of Elder Brethren was 31, and of these 20 were practical seamen, the majority being master mariners in the merchant service. The remaining eleven Elder Brethren, who took no part in the active duties of the corporation, consisted of persons of distinction, such as members of the Royal Family, Ministers of State, naval officers of high rank, etc. In the year 1871, as the result of correspondence which took place between the Deputy Master and the then President of the Board of Trade (Mr. John Bright) it was agreed, for reasons given in the Parliamentary paper, which I will put in, that the number of the acting members of the Board should be reduced from 20 to 13, and in November, 1871, the supplemental charter above referred to was granted to enable this reduction to be carried into effect. Of course this could not be done immediately; it could only be done by the non-filling up of vacancies so that the complete reduction under the supplemental charter did not come into effect until 1888.

257. Will you give us the reasons for the reduction in the numbers of the Elder Brethren?—The reasons for the reduction are set forth in Mr. Bright's letter to the Deputy Master dated March 23rd, 1869, of which the following is an extract:—"The remuneration fixed by Parliament, viz., £7,000 a year is not, when divided among the whole number, sufficient to attract the service of the best men of an active profession whilst still in the prime of life." *Remuneration of Elder Brethren.*

258. From what source is this £7,000 paid?—It was a sum allowed by an Act of 1822, to be taken from the lighthouse revenue for the payment of the Acting Elder Brethren, in lieu of certain fees called "Elder turns" which, from time immemorial, had hitherto been the method of paying the Elder Brethren, and which were derived from fees charged on vessels entering or leaving the Thames. From that time those fees were credited to the lighthouse revenue.

259. I suppose the object in making this change was to have a fixed sum instead of a fluctuating one? —Yes, I take it that was so.

Appointment of Younger Brethren.

260. Then as to the Younger Brethren, how are they appointed?—They are proposed and seconded by any two members of the Board, then they are elected and pay a small fee of entry. They take no part in the duties of the Trinity House, excepting that once a year when we have our anniversary meeting they attend at the Trinity House and vote in the elections of Master and Wardens.

261. What is the actual number at present?—About 205, I think, at the present moment.

262. Is the number maintained at about that figure as a rule; has it varied much from time to time?—I think we might put it at that.

263. Supposing the number had already reached 200 or upwards?—The number is unlimited.

264. It is unlimited not merely in theory but in practice as well?—In practice as well, yes that is so.

265. Do you find that the suggestions made by the Younger Brethren as regards improvements of lighting on the coast are of value to the Elder Brethren?—They do make occasional suggestions and write and suggest alterations.

266. They are encouraged to do that?—Yes, that is to say we tell them on election that we are always very glad to see them, and if on their way about they have any suggestions to make by which a seamark may be improved, the Elder Brethren are very glad to hear what they have to say.

267. Do you get many suggestions as a matter of fact?—No, as a rule we do not get many, but when we do they are generally very practical suggestions.

268. They are in no way consulted when there is any doubt in the minds of the Elder Brethren as to whether some new seamark should be erected?—No. There would be considerable difficulty in getting their opinion as a body, because they are men all over the world. We only see them occasionally.

269. They are actively engaged in their profession for the most part?—They are actively engaged in their profession, and of course we very rarely see anything of the senior men except at the annual meeting, that is those men who have been on the list of Younger Brethren for many years.

Elder Brethren: Election of,

270. Then how is the election of the Elder Brethren managed?—The election of an Elder Brother is by co-option. On a vacancy occurring arrangements are made for filling it, and they vote amongst themselves by ballot.

271. The Younger Brethren vote?—I thought you said how are the Elder Brethren elected.

272. Yes.—The Elder Brethren are elected by co-option amongst themselves. The Board fill up the vacancies in the Board.

273. They must be Younger Brethren?—They must be Younger Brethren.

274. Is there any qualification necessary besides that?—No person is eligible to fill the office of an Acting Elder Brother unless he has served afloat actually in command of one or more of His Majesty's ships for at least three years or has attained the rank of commander in the Royal Navy, or unless he shall have commanded in the Mercantile Marine on foreign voyages for at least four years. The Mercantile Marine also is held to include the Royal Indian Marine, or the marine service organised by the governing body of any British colony. That is the qualification.

Division of, into Committees.

274a. For the purpose of carrying out the duties of the Corporation the Elder Brethren are divided into committees?—Yes, Sir, we have three committees. First the Committee of Wardens, which is presided over by the Deputy Master for the time being; then there is the Committee for Lights and the Examining Committee. These Committees meet on Tuesdays and Fridays and on such other days as may be necessary, a member or members of each committee also attending daily to deal with any matters of urgency. The full Board of Elder Brethren holds a weekly meeting (on Tuesdays) for the consideration of special matters, and to deal with the various reports and recommendations submitted by the committees.

275. Have the committees power to give effect to any decision at which they may arrive without submitting it to the Board?—On matters relating to the general personnel of the service they would have, but if there was any special matter that would come to the Board for their confirmation.

275a. Reference to the Board is only made in matters of importance?—That is so.

276. Are any Elder Brethren members of more than one committee?—Not of these three committees.

Duties of Committees: Warden's Committee.

277. Will you describe to us the duties of the Wardens' Committee?—The Wardens' Committee deals with all matters of finance and accounts, light dues questions, tenders and contracts, etc. This committee also deals with the special matters referred from the Board for consideration and report, and occasionally sits with other committees on special questions, *i.e.*, forms part of a joint committee. The Wardens are appointed from the senior members of the Board, whose long experience in all branches of the service specially qualifies them for the responsible duties of this committee.

Lights Committee.

278. What are the duties of the Lights Committee?—The Lights Committee is the executive committee for administering the lighthouse, lightvessel, steam vessel and buoy and beacon services of the corporation. This committee deals with all matters relating to the personnel of the several branches of the service, inquires into all complaints and casualties, regulates the admission of light keepers or light and steam vessel men, and their removals, promotions, superannuation, etc. It is also responsible for the efficient maintenance and repair of stations, controls the store department of the service generally, including the invitation of tenders, etc., and all experiments with lights, fog-signals and inventions are carried out under its supervision. It also shares with the other committees in the important duties which are required afloat. All lighthouses, lightvessels, beacons, etc., round the coast are visited and inspected by a member of the Lights Committee at least once a year, and all lights under local jurisdiction once every four years. Another very important branch of this committee's duty is that connected with the powers given to the Trinity House under the Removal of Wrecks Clauses of the Merchant Shipping Act specially referred to later.

279. You say that the duties which are required afloat are shared by the Lights Committee and the other committees?—Yes, mainly with the Examining Committee, whose duty it is to examine and see that all the seamarks are in their proper assigned position.

Examining Committee.

280. Then let us proceed to the duties of the Examining Committee?—To the Examining Committee is entrusted the duty of periodically examining the whole line of English and Welsh Coast, and any changes in the navigable channels are duly considered by them view a view of effecting such alterations in seamarks as may be necessary. The positions of all lightvessels, buoys, etc., are also personally verified by a member of this committee at least every two years, or oftener, if necessary. The Examining Committee also advises the Board as to the necessity for any additions to the lighting or marking of any particular locality or channel, and the character of the seamarks which may be required. It also advises as to the extent to which wrecks, reported from time to time, constitute a danger to navigation or to lifeboats, also as to their removal, when necessary, and the depth required over them for the safety of shipping.

281. The duties in connection with wrecks seem to be shared then between the Lights Committee and the Examining Committee?—Yes, the Examining Committee advises as to the extent that a wreck is a danger, and how much water should be made over it, and then it goes back to the Lights Committee to be carried out. The Examining Committee also issue all Notices to Mariners relating to seamarks, and the character and efficiency of all lights, etc., under the jurisdiction of local authorities is considered by this committee, as well as the applications by the Scotch and Irish Lighthouse Boards in respect of changes or additions to the seamarks under their respective jurisdictions. These proposed changes require to be approved by the Examining Committee before receiving the statutory approval of the Board. These duties require at times a personal inspection on the spot before the matter which is being dealt with can be reported on. The members of the Examining Committee also act as the Pilotage Committee of the Corporation, and in that capacity

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manage all matters of detail connected with the London and outports pilotage districts, for which the Corporation of the Trinity House is the pilotage authority. It should be added that, so far as the London pilotage is concerned, the committee of Elder Brethren is supplemented by a shipowner and pilot, who are elected yearly by the shipowners and pilots respectively, in accordance with the terms of the Pilotage Confirmation Act of 1896. There is also an Audit Committee, consisting of one member of each of the other Committees and myself, which meets once a month to examine the General Lighthouse Fund accounts for the previous month. I will put in a memorandum describing our system of account and audit. Besides the above committees there are four committees dealing with corporate matters, such as charitable pensions, almshouses, estates, etc., etc., the accounts of which are rendered to the Charity Commissioners.

Audit Committee.

Committees dealing with corporate matters.

282. I presume those matters do not concern the Lighthouse Fund at all?—No, not in the slightest.

283. And any expenditure that is required is provided for out of the corporate funds?—Out of the corporate funds, pure and simple. Of course, there would have been no necessity for me to state that, but it was thought the Commission would like to have a full knowledge of what the Elder Brethren do at the Trinity House.

284. The duties which belong to the Elder Brethren in their corporate capacity are comparatively small, are they not?—Yes, there is not very much, but of course these committees meet once or twice a week for dealing with these matters, but, as you say, their duties are comparatively small as compared with their public duties.

Head Office Establishment of Trinity House.

284a. Will you next describe to us the official establishment?—The official establishment at the Trinity House, which is regulated by Order in Council, is at present constituted as follows:—

One Secretary.
Two Principals.
Four First-class Clerks.
Four Second-class Clerks.
Four Lower-grade Clerks.

All the above are covenanted officials, and are under the same conditions as respects superannuation, etc., as the regular Home Civil Service. Appointments are made to the second class and lower grades after competitive examination by the Civil Service Commissioners, five candidates being nominated for each vacancy. The official establishment also includes a female typist, two extra clerks and a number of boy clerks.

285. How does this distinction arise between covenanted and uncovenanted officers?—I think, Sir, that is very much on the same lines as in every Government Department. There is a covenanted staff, and some of the lower-grade men are uncovenanted. It is the same in our Engineer's department.

286. Does the appointment of uncovenanted officers require the sanction of the Board of Trade?—Yes.

287. Just the same as of a covenanted officer?—Just the same. They are paid according to a scale. The uncovenanted men are paid according to a scale which had been previously sanctioned by the Board of Trade. There is also a Scientific Adviser to the Board (this appointment being at present held by the Right Hon. Lord Rayleigh) and a surveyor of shipping.

288. Is the post of Scientific Adviser a paid post?—Yes.

289. What is the salary of that?—Of the Scientific Adviser?

290. Yes?—He gets an honorarium of £200 per annum. If you like we can give you particulars of the salaries.

291. We shall require undoubtedly a statement of the salaries of all the officers.—I have them here; I can put them in now.

Salaries: Office Staff.

292. You had better put in a statement of the salaries of the whole staff.—I do not think this is quite in a form I can hand in officially. The Secretary's minimum salary is £1,000, rising by annual increments of £50 to £1,200. The two principals; their minimum is £600, rising by £25 to £800. The four first-class clerks; their minimum is £400, rising by £20 to £550. The four second-class clerks; their minimum is £120, rising by £15 to £380; and the four lower-grade clerks begin at £80, and for the first five years, I think it is, they have an annual increase of £5 to £100. After they have got £100, they rise by £7 10s. every year to £190; and then by annual increments of 10 to £250. Extra clerks have £3 a week. The typist gets £1 5s. per week, and the boy clerks are paid according to the scale in the Government's service. They commence at 15s. a week and rise a shilling a week per annum to 19s.

293. Can you tell us how those salaries compare with the salaries in Government Departments?—They are lower than the salaries of the Board of Trade. I think the principal clerks in the Board of Trade rise to £900; ours to £800. These figures you can easily compare, and you will find that our scale of pay is certainly lower.

294. Is on the whole lower than in Government Departments?—It is on the whole lower.

295. Taking the Board of Trade as an example?—Yes.

296. In addition to the staff you have already mentioned, there is also a Pilotage Department and an Estates Department?—Yes, in addition to the above staff, there is a Pilotage Department and an Estates, etc., Department (four clerks in each), but these are quite distinct from the Lighthouse Department, and there is no charge upon the General Lighthouse Fund in connection with them. The salaries of the Engineer's staff are—the Engineer-in-Chief, £1,000, rising by £50 to £1,200, and this has subsequently been increased in the case of the present holder to a maximum of £1,500 per annum.

Engineer's Staff.

297. That is a personal salary?—I think so—yes. The salary under Order in Council is £1,000, rising by £50 to £1,200, but the present Engineer is allowed to go up to a maximum of £1,500. That, of course, is after consultation and with the sanction of the Board of Trade. The Assistant Engineer has a minimum of £400, rising by annual increments of £20 to £600. The Mechanical Assistant Engineer has a minimum of £200, rising by annual increments of £15 to £400. The Marine Assistant Engineer has a minimum of £200, rising by annual increments of £15 to £400. The Chief Engineering Clerk has a minimum of £300, rising by annual increments of £20 to £500. The Assistant Clerk has a minimum of £150, rising by annual increments of £15 to £250. The draughtsman, whose appointment is to lapse, has £225 per annum. As regards the uncovenated staff, there is a Civil Constructive Assistant with a minimum salary of £250, rising by £15 per annum to £350. There is also one clerk with a minimum salary of £70, rising by £10 increments to £180 per annum; one clerk with a minimum salary of £52, rising by increments to £78; and one boy clerk at 15s. a week, rising by increments of 1s. annually to 19s. per week. In addition to that, the Engineer gets a percentage of 2½ on the value of any work for other Departments, such as the Colonial Office or India Office, that passes through his hands, but that does not amount to very much. On the average, it would be under £150 a year. That is also done with the consent of the Board of Trade.

298. (*Mr. Ennis.*) Who gets this 2½ per cent.?—It is handed to the Engineer, and I believe he gives a proportion to the men in the staff that help him.

299. (*Chairman.*) But that is an arrangement between him and them?—That is an arrangement between him and them; the money comes to him and he signs for it.

Light Dues: System of levying,

300. Passing from that subject, have you any observations to make on the way in which lighthouse revenue is raised?—The funds for meeting the expenditure of the General Lighthouse Authorities of the United Kingdom are derived from light dues levied on vessels trading to or from the various ports in Great Britain and Ireland. Prior to April, 1899, these dues were levied in the form of specific tolls on the net tonnage of a ship, for each seamark within the jurisdiction of a General Lighthouse Authority which she either passed or derived benefit from on her voyage, and these tolls were payable in respect of every voyage made by the ship during the year. By the Merchant Shipping (Mercantile Marine Fund) Act, 1898, these tolls were done away with, and a fixed charge per ton, payable for a limited number of voyages in any one year, was substituted. Details of these charges will be found in the printed schedule attached. The Trinity House is now responsible for the proper collection of light dues at all ports in the United Kingdom, and, by arrangement with the Board of Customs, the

and of collection.

Chief Officers of Customs at the different ports are appointed by the Corporation to collect the dues. The dues are remitted periodically to the Paymaster-General through the Board of Trade. But accounts of collection are rendered to the Trinity House monthly and there examined and checked.

301. Practically the only work of the Trinity House, after collecting the dues, is this examination and checking?—Well, of course, the collectors are constantly in communication with us in connection with special matters, such as claims for repayments, cases requiring special consideration, etc., etc., and these are dealt with direct between the collector of the Customs and the Trinity House.

Seamarks controlled by, Trinity House.

302. Would you kindly enumerate the Trinity House seamarks?—The seamarks in England and Wales which are under the direct control of the Trinity House are as follows:—71 lighthouses (with resident keepers), 12 unwatched lights, two separate fog-signal stations.

303. By separate fog-signal stations I suppose you mean stations which are fog-signal stations, and that only?—That is so; then there are 50 lightvessels, five lighted bell buoys, 35 lighted buoys, 18 bell buoys, two whistling buoys, 517 ordinary buoys, and 64 beacons, and for the work afloat in connection with the service generally a fleet of eleven steamers of small tonnage is kept constantly employed.

304. Have these vessels to be specially constructed for their work?—Well, of course, by reason of the work that they have to do, it is necessary that they should be of exceptional strength, and fitted with special lifting gear. I have a statement here which perhaps you would like me to put in of the tonnage and general particulars with regard to these vessels.

305. Including the cost?—Including the cost. Would you like that furnished?

Division of coastline into Districts.

306. If you please.—For Trinity House purposes the English and Welsh coast line is divided into seven districts, each being under the charge of a local superintendent, who has been trained in the service from his boyhood, and who, in addition to his other duties, is required to inspect and verify all stations under his charge at least once a quarter. The accompanying book contains maps showing the limit of each district, the positions of the respective depôts at which the superintendent resides, and a detailed list of all the lights, etc., stations, included in each district. The preface contains particulars of the English light, etc., service, generally. I have also put in a copy of the Service regulations, which contain full particulars of the manner in which the duties of the district superintendent are to be carried out.

307. Can you give us full particulars with regard to the first cost, tonnage, and so forth, of lightvessels and steam vessels?—I have prepared a statement which will give that information, and I shall be able to put that in.*

308. Can you also give us information as to the cost of maintenance and repairs of lighthouses and fog-signalling stations?—Yes.†

Stores: Method of obtaining, by contract.

309. As to store supplies, these are always obtained by contract, are they not?—Yes, that is so invariably. The various stores required are always obtained by contract, tenders being invited either by public advertisement or from selected firms. The former method is adopted in regard to stores, etc., the supply or manufacture of which does not necessitate previous knowledge of Trinity House requirements, the remainder are obtained from selected firms. In all cases, where feasible, samples are obtained from firms tendering. These samples, when appertaining to oils, paints, etc., for which specifications are provided, are subjected to analysis in the Government Laboratory, and the lowest tender is only accepted when the sample complies with the specified requirements. Lighthouse oils have, in addition, to undergo an exhaustive burning test. The tenders for stores in regard to which expert opinion is required are submitted to the Engineer-in-Chief, or other expert, for his report before arriving at a decision as to their acceptance. In order to ensure that the quality of the oils, paints, etc., delivered shall be equal to that of the samples submitted with the tenders, further samples are obtained from the deliveries and analysed; if these are reported as unsatisfactory the deliveries from which they have been taken are rejected. Chain cables, rope, etc., are subjected to special test at the Blackwall workshops, and rejected if they fail to pass; the cables having previously been subjected to the statutory proof strain at a public chain-proving house licensed by the Board of Trade.

and of supplying, to light stations.

310. Arrangements are made to have certain complements of stores at all lighthouses and on board all lightvessels?—At all lighthouses and on board all lightvessels a certain complement of stores has to be kept, and every year the officer in charge of each station submits to the Trinity House, through his superintendent, an indent for such stores as are required to make up this complement. Special indents are furnished by the superintendents throughout the year for such expendable or other stores as may from time to time be required.

Wreck removal work of Trinity House.

310a. Will you tell us something about the wreck work of the Board?—The Removal of Wrecks Act, 1877, imposed upon the Trinity House, as a General Lighthouse Authority, the duty of marking, removing and otherwise dealing with all wrecks (not within the jurisdiction of a local authority), which are, or may become a danger to navigation, and by an Amendment to the Act in 1889, this duty was made to include all wrecks which are, or may become a danger to navigation, or to lifeboats engaged in lifeboat service. This wreck work, the obligation to perform which is continued in the existing Merchant Shipping Act of 1894, which absorbed the previous Wreck Removal Acts, adds very considerably to the duties and responsibilities of the Trinity House, necessitating as it does, the employment of their steam tenders and a staff of trained divers for a large portion of the year. It has been estimated that the time occupied by the various Trinity House steamers upon wreck work is, in any one year, equivalent to the continuous employment on such work of one steamer during the whole year. The ordinary staff of officers in the Steam Vessel Service, all of whom receive training in the use of explosives at Portsmouth Dockyard, not being sufficient to cope with the large amount of wreck work, a supernumerary officer has recently been appointed, one of whose special duties is to take charge of wreck dispersal operations. Apart from the time occupied in actual wreck dispersion, etc., the steam vessels are frequently engaged in searching for floating or other wreckage, which has been reported as having been seen by passing vessels, and in doing so are sometimes required to travel long distances, on what proves to be a fruitless errand.

Control of Trinity House over Local Lights.

311. What are the duties of the Trinity House with regard to local lights?—The duties and responsibilities of the Trinity House in respect of local lights (*i.e.*, seamarks belonging to local authorities) are defined in the 652nd and following sections of the Merchant Shipping Act, 1894. These include periodical inspection by the Elder Brethren of all such local seamarks as are under the jurisdiction of the Trinity House. The results of such inspection are communicated to the local lighting authorities concerned, and also to the Board of Trade annually for presentation to Parliament. In addition to this inspection duty considerable work is entailed at headquarters in dealing with applications from local authorities in connection with any proposal for new or altered seamarks, full particulars of which must be laid before the Trinity House and statutory sanction obtained thereto before such proposals are carried into effect.

312. The local authorities are not entitled to put up any new light without the sanction of the Trinity House?—That is so.

Seamarks maintained by Trinity House for other bodies.

313. Are there seamarks maintained by Trinity House not on account of the Lighthouse Fund, but for other bodies?—Yes. In addition to the work appertaining to the light, etc., service in Great Britain and Ireland, there are several seamarks round the coast which are maintained by the Trinity House, on repayment, for the Admiralty, War Office, the London County Council, and certain local authorities, particulars of which are as follows:—At Dover Pier Works

* See Appendices B, III. and IV. † See Appendix B II.

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we have placed a lightvessel outside the works, for which we have an annual rental of £2,275. Then there is the Warner lightvessel for the Admiralty; that is somewhere down by the Isle of Wight.

314. (*Admiral Henderson.*) The entrance to Spithead.—Dover Lighthouse, beacon lights on Portland Breakwater, three gas buoys in Solent, three gas buoys on Cant Sand, one gas buoy at Kingsdown Rifle Range, bell buoy and gas beacon at Dover, two measured mile buoys on Maplin Sands. All these are for and on behalf of the Admiralty. Then for the London County Council and others we have five gas buoys in Black Deep. That is for marking the sludge deposit area. Then for the Harwich Harbour Conservancy Board, one gas buoy at North Shelf; one gas buoy at each end. For the Colchester Corporation we have one gas buoy at Knowl. For the Great Eastern Railway we maintain two ballast buoys at Lowestoft, and for the Lowestoft Corporation a sewer outfall buoy. The expenses of all these seamarks are charged and paid by the respective authorities for whom they are placed.

Payment for Extraneous Services.

315. (*Chairman.*) Do you charge an annual rental?—We charge an annual rental, which is computed to cover every expenditure.

316. To cover every expenditure?—To cover every expenditure, including renewal after a certain number of years, sinking fund; everything that can be possibly added to such a calculation we take care to add.

317. Leaving, I suppose, a certain margin to cover contingencies?—Oh yes, we take care to have a good rental for anything we do in that way.

318. You do not seek, however, to make a profit?—No, we do not make a profit. We give them what we call a fair average price. Of course we give them particulars; we show them how we arrive at that before they consent to it.

319. Is it the fact that your advice is sought by the Government of India and the Colonial Governments in connection with lighting?—Yes, we frequently advise the Colonial authorities in regard to proposals for new or improved lights, while some of the Colonial authorities obtain their principal lighting stores through the medium of the Trinity House.

320. Do you charge the Colonial authorities who obtain their lighting stores through you at cost price?—We charge them what they originally cost, and in addition we charge them a percentage to cover departmental expenses. In addition to those figures I gave you just now of work we do for the Admiralty at the Dover Harbour Works, we have carried out other work for them there in lighting the works under construction to the extent of £3,000, and that is still going on. Then at Portland Breakwater we erected all the lighthouses that mark the new Portland works—the harbour of refuge there, that was at a cost of £3,000. The Admiralty asked for our advice as to lighting the Moles at Gibraltar, and we constructed the necessary lights, and sent them out with men to fit them up, at a cost of £2,300.

321. We may take it, then, that in the view of the Admiralty——?—The Admiralty, Sir, comes to us for everything in connection with seamarks.

322. The view of the Admiralty is that you can do the work at least as efficiently and cheaply as they can themselves?—Well, you see we have a staff always ready to do it.

Difficulty of comparing English and French Lighthouse Services.

323. Do you desire to make any observations in reply to criticisms from time to time made upon the administration of the Trinity House?—Various charges have been made from time to time in past years of inefficiency and extravagance in regard to the Trinity House Service, and amongst other things it has been stated that the lighthouse service of France is much more economically conducted than that of England. I am quite certain that the Trinity House will be ready to meet any charges of inefficiency which might be made before this Commission by others. We shall have a ready answer to that; but in respect of French lights, in 1894, when that question was gone into in connection with the investigation by the special Committee appointed by the Board of Trade to inquire into the condition of the Mercantile Marine Fund, it was found to be impossible to obtain reliable data from which an accurate comparison could be made between the English and French Lighthouse Services, owing to the fact that in addition to the fixed sum which is voted annually for lighthouses, etc., in France, a considerable amount of lighthouse work is carried out by the "Ponts et Chaussees" branch of the Public Works Department, the cost of which is not specifically charged to the Lighthouse Service.

324. Have you endeavoured to ascertain as far as you can what the system of administration is in foreign countries, and what is their expenditure, so as to be able to institute a comparison?—We have not done anything like that in connection with this present Commission, but, as I say, on Lord Courtney's Committee, I think our people went very carefully into it, and they found they could get no reliable data from them. They could make no fair comparison. Of course, if the Commission would like that matter looked into——

325. I was wondering whether you had ever endeavoured to obtain this information, not to put before a Commission of Inquiry, but to check your own expenditure?—The conditions are so totally different, you see. To begin with, the cost of wages, labour, and material are so very different in this country from what they are in foreign countries; wages would be much less abroad.

Interchange of information with Foreign Lighthouse Authorities.

326. Do you, as a matter of fact, endeavour to keep in touch with everything that is being done in the way of lighting the coasts abroad—in foreign countries, I mean?—Yes; they supply us with reports of changes in their seamarks, as we do them.

327. You interchange information?—Oh, yes, we do; with France particularly. For instance, now, when we propose to make any change in the character of a seamark in the English Channel we always communicate with the French authorities. That was agreed to some years ago, and when the French Government propose to make any change in the distinctive characteristic of a seamark they write and tell us, and ask us if we have any observations to make, and we do the same with them.

328. That is in order that you may work in harmony?—Yes.

329. But if, over and above that, the French Lighthouse Authorities were carrying out any experiments, would they, as a matter of course, communicate the results to you?—No, I do not think they would; not unless we asked them for it.

330. But you do in practice ascertain if such experiments are being carried out?—If it came to our knowledge that they were doing something which would be of interest to us we should write and ask them. We occasionally write to the Lighthouse Departments of France and of the United States and ask them for information in respect of what they are doing. Only recently, for instance, in connection with this latest invention for fog-signalling by the submerged bell, we communicated with the Lighthouse Department at Washington, and asked them if they would give us their experience.

331. Those are the two most important countries from the coast lighting point of view?—Yes.

332. (*Colonel Herbert.*) You have no system of collating information and keeping a sort of intelligence department as regards lighting operations?—No, I cannot say that we have that.

333. (*Admiral Henderson.*) You would not generally know if there was any very great improvement made in Germany, for instance?—Well, we should, of course, in this way: we should have the Notices to Mariners; and if we saw anything in them——

334. Yes; but I mean to say mechanical improvements in lighthouses themselves, methods of burning oil for lights?—We should indirectly, because the inventors would be sure to bring them to our notice.

335. (*Chairman.*) You do not think any important improvement experimented upon or adopted abroad is in the least likely to escape your notice?—I should say not.

Functions of Trinity House.

336. (*Colonel Herbert.*) I gather from your general evidence that the functions of the Trinity House generally are numerous. You are, in the first place, the Lighthouse Authority for England?—Yes.

337. You are the controlling authority over the Scotch and Irish Lighthouse Authorities?—Well, to a certain extent that is so. They cannot establish a new light or alter any existing light without first submitting the proposal to the Trinity House and getting their statutory approval.

338. They cannot communicate with the Board of Trade except through Trinity House?—That is so in respect of proposals for new or altered lights.

339. Then you are further the inspecting authority of Local Lighthouse Authorities?—Yes.

340. And you are the collecting authority for all light dues throughout the whole kingdom?—Yes.

As to wrecks.

341. In addition to that you have likewise the duty of superintending the removal of wrecks. I do not quite follow whether that was in England only or in Scotland and Ireland as well?—That is within the jurisdiction of the Trinity House as the General Lighthouse Authority for England and Wales.

342. That function is exercised separately by Scotland and Ireland?—Yes, just so.

As to pilotage.

343. Similarly with regard to the Pilotage Committee, I did not quite follow the limits of the functions of the Trinity House with regard to pilotage?—The Trinity House is constituted the Pilotage Authority for the London District under their Charter of 1685, and by the Act of 48 Geo. III., 1808, powers were given to the Trinity House to provide pilots at out-ports where no provision already exists for the appointment of pilots. That is their charter, as it were, by which they are the General Pilotage Authority.

344. Then you are a pilotage authority for the Thames only?—We are the pilotage authority for the London District only.

345. And under exceptional circumstances for other places?—At certain outports round the coast.

346. But you do not deal otherwise officially with any of the other pilotage authorities in the kingdom?—No, we have no jurisdiction in respect of other pilotage authorities the same as we have with the light authorities.

As to survey work.

347. Exactly; that is the point I wanted quite clear. Then with regard to the duties of the hydrographical survey, do you take any part in that? It is a necessary part, of course, of the survey to have lights, beacons, and so forth, marked. In what way is the responsibility limited as to the correctness of that? There is the correctness both for the position of the thing itself and also for recording that position on the chart, and between the two an error might occur. Do you see the point I am driving at?—Of course the hydrographical work pure and simple, I take it, is the department of the Hydrographer of the Admiralty. Our duty is to satisfy ourselves that our seamarks are in their proper position.

348. I want to know what functions you discharge as to survey at all?—Only to satisfy ourselves that our seamarks are in their proper position and properly mark the channels they are intended to. Of course, the Admiralty always communicate to us any results they obtain in their work of survey round the coast.

349. But the position of buoys and marks of certain characters must be dependent upon the condition of the sea bottom?—Yes.

350. Which varies from time to time. That is ascertained by the hydrographical survey; therefore you have to be brought into communication with that body, which is constantly revising the charts?—Yes, that is so; and we are constantly in communication with the Hydrographer. The Hydrographer at once sends us a proof of the latest print of a chart that he may have printed, and if there is anything that requires special attention he would call our attention to it.

351. You trust to them for that?—Oh, no; I should not say that we trust to them for that, because our people are constantly on the look out. We are constantly sending our vessels up and down the channels sounding. In fact it is one of the principal instructions to our men in charge of steam vessels to satisfy themselves that the buoys and lightvessels are in their proper positions.

352. Do I understand rightly there are two different points which have to be attended to? First, are the buoys in their proper place, that is the place marked out for them in the chart?—Yes.

353. And, secondly, is it desirable at any time to shift that place elsewhere; but these are two distinct questions?—Well, that is the duty of the Examining Committee I told you of just now; it would be their business.

354. It would not be necessary to communicate with the Hydrographer with regard to the question whether your buoys were in the right position; you could ascertain that for yourselves with a survey, and if they were not in the right position you have them put in the right position?—Quite so; and if there were any change in its original position we should issue Notices to Mariners and tell them so.

355. And communicate with the Hydrographer?—And communicate with the Hydrographer.

356. But the necessity for the change of the position would very probably be discovered in the course of the Hydrographical Survey work?—Such a thing might occur.

357. Would not that be so?—This very rarely occurs.

358. But generally you regard that as your own function?—We certainly take the responsibility of properly marking the channels, and that the seamarks are in their proper position for that purpose. That is the Trinity House responsibility undoubtedly.

359. (*Admiral Henderson.*) I think every sailor gives them every information. A sailor sings out; it is enough if he fancies a buoy out of position; we always give them notice immediately.

360. (*Colonel Herbert.*) It is more the case of providing protection beforehand; I understand, therefore, it is to see that the Trinity House is beforehand, and it is not always a question of crying out after an accident has occurred. That is the point I am upon?—That is the special duty of the district superintendents who are constantly afloat to see that the buoys are in their proper position.

361. My point, if you follow me, is, I want to see that there is no danger of a sort of hiatus between the two authorities where danger might come in between the Hydrographer and yourselves. You have not mentioned that fact, but from the nature of things you must be in constant communication with him?—Yes, we are.

Younger Brethren: App int- ment of,

362. With regard to the appointment of the Elder Brethren. The Elder Brethren, you stated, were elected from the body of Younger Brethren, but is there any qualification for the candidature of a Younger Brother?—No, I do not think that there is, excepting that I do not think we should elect a Younger Brother unless he were a sailor. You see, the election of a Younger Brother is entirely in the hands of the Board. They come in on being proposed and seconded by two of the acting members of the Board. They, as it were, are sponsors for them.

363. Practically anybody may be?—There is nothing in the Charter, as far as I know, which defines the qualification, excepting an assumption in the first lines of the Charter. The Charter of James II. reads as follows:—"To all to whom these presents shall come, greeting. Whereas our well-beloved lieges and subjects, shipmen and mariners of this our Realm of England." There is an assumption that the charter is dealing with the body of "shipmen and mariners."

364. (*Chairman.*) As a matter of fact, are there any Younger Brethren at the present time who are not practically connected with the sea calling?—There is one I know who is not practically connected, although he has got a master mariner's certificate, and that is the present Lord Brassey. He is the only man I know of who has not been in active service at sea.

365. He has got a master's certificate?—He has got a Board of Trade master's certificate.

366. (*Colonel Herbert.*) He is only a Younger Brother?—He is only a Younger Brother. Would you like to see this list of Younger Brethren; that gives their service, every one of them?

(*Chairman.*) I think it would be a very useful thing to have, certainly.

Work of Examining Committee.

367. (*Colonel Herbert.*) With regard to the Examining Committee, I see you say the Examining Committee also advises as to the necessity, and so on. Has the Examining Committee any systematised communication with the representatives of the shipping interest. The Examining Committee, you said that it advises the Board on certain matters connected with lights?—Yes.

368. Has the Examining Committee any systematised communication with representatives of the shipping

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interest?—No, the Examining Committee is the committee that advises the Board upon matters that are sent to the Trinity House for consideration. For instance, communications from the Irish or the Scotch Commissioners to the Trinity House asking for sanction to any proposed work, go to the Examining Committee to report upon, and then to the Board with the Committee's recommendation.

369. The point I was on was this: There is an Examining Committee, I may be wrong in saying the Examining Committee, but one that makes reports to the Board of Trade with regard to changes; has it got any communication with recognised representatives of the shipping interest who are obviously interested in the lighting question?—The Examining Committee as a committee would have no communication whatever with the outside public.

Opinion of Shipping Community sometimes invited by Trinity House.

370. (*Chairman.*) In connection with that, I think it is the fact that on one or two occasions, on the suggestion of the Board of Trade when there has been a difference of opinion between the Lighthouse Authorities and the Advisory Committee, you have put yourself in communication with shipmasters?—Oh, yes, that is so.

371. Acquainted with the navigation of the particular locality?—We have sometimes asked for outside opinions as to what was thought of a proposal when we have thought it necessary.

372. But you do not do that habitually?—No.

373. (*Colonel Herbert.*) It is no part of the system?—No, it is not part of the system, but, of course, we have applications, petitions, and memorials from seamen and others frequently for alterations or additions to the seamarks round the coast. These are duly considered, and the Board having come to a decision thereupon communicates that decision to the people who communicated with us.

374. I see a representative element has been introduced into your system with respect to pilotage?—Yes.

375. Has it ever been considered whether such an element could be introduced in respect of lighting?—Well, that, you see, is a matter which affects the corporation and its constitution. I should prefer, if you do not mind, Sir, that you should ask that question when the Deputy Master comes to be examined. I have no authority to speak for the Board on the matter at all.

376. I am merely asking you as a matter of record, has such a thing ever been considered?—Not by the Trinity House.

Corporate Funds: Source of,

377. Now, one of your committees deals with other matters, such as charitable pensions, almshouses, and so forth. Whence are those derived?—From money that has been specially left to the corporation for the purpose, charitable funds specially earmarked.

378. Then the corporation does benefit by charitable bequests and so forth?—Yes.

Control of,

379. Like other corporations?—Yes, but, of course, we are under precisely the same conditions in respect of those funds as are other charities, that is to say, everything is done with the sanction and knowledge of the Charity Commissioners.

380. I had a note here to ask what was the extent of your authority in respect to that; you are under the Charity Commissioners?—Yes, the same as other charitable bodies would be.

General Lighthouse Fund: Expenses borne by,

381. Now, with regard to the salaries of the officers whom you have mentioned, are these borne by the General Lighthouse Fund?—They are all borne by the General Lighthouse Fund.

382. They are all borne by the General Lighthouse Fund?—Except those for the Pilotage and Estates Departments.

383. There are some extra ones, I know, but all the regular ones?—All the official staff, the cost is borne by the General Lighthouse Fund.

384. That is, the payments made in respect to this salary and superannuation, those officers do not come within the purview of Parliament at all?—Only to the extent that the account for the General Lighthouse Fund is presented to Parliament every year.

385. It is not under the control; there is no vote?—No, there is no vote, that is so.

386. How are the officials of the Pilotage and Estates departments paid?—The estates department would be paid out of the Corporate Funds. The accounts of the corporation as a pilotage authority are presented to Parliament every year, the same as all other pilotage authorities throughout the country.

387. The point I am on is the question of Parliamentary control. Those accounts of the corporation are accounts over which Parliament has no authority whatever?—They merely take cognisance of accounts which are presented, I suppose, by courtesy or custom.

388. (*Chairman.*) They are moved for, I think?—That is so; they are presented annually.

389. (*Colonel Herbert.*) They do not appear in any Government estimate?—No, they do not appear in any estimates.

Arrangements for collection of Light Dues.

390. The charge for collection of light dues, is that likewise borne by the General Lighthouse Fund?—The cost of collecting?

391. Yes.—There is no cost, because the work is done by a Customs officer—the amount is paid to the Commissioners of Customs. The following is taken from the General Lighthouse Fund Account for 1904-5, that is the latest printed. Amount paid to the Commissioners of Customs for the collections of light dues, £7,500. That does not come through us at all; they get that through the Board of Trade; it does not come through the Trinity House at all.

392. Then it is not borne on the Lighthouse Fund Account?—Oh, yes, it is borne on the Lighthouse Fund, because here is the General Lighthouse Fund Account.

393. You are credited with that by the Customs Authority, and you repay it, or rather the Board of Trade does it for you?—As I take it, this amount of £7,500 is paid over to the Commissioners of Customs, and it is a transaction between the Board of Trade and the Customs; the Trinity House have nothing whatever to do with it.

394. But I understand that you are the collecting authority?—We are the collecting authority, but we never handle the money.

395. So that, technically, you are responsible, though it may be done for you by the Board of Trade?—Under the Act we are responsible for the collection of light dues.

396. And, therefore, you are responsible for the payment?—Yes, but by arrangement the money is sent direct through the Board of Trade to His Majesty's Paymaster-General. The Collector of Customs makes remittances according to instructions, but that, as I say, is a matter which is now entirely in the hands of the Board of Trade.

397. (*Chairman.*) The sum paid to the Customs is by agreement with the Treasury, probably?—I must say that I do not know. I think Mr. Pelham would have been able to have told you that. In years gone by, I know as a fact, that the monies used to be remitted direct to the Trinity House. We paid a small commission to the collectors of Customs, who were then more clearly recognised as our servants, as it were, so far as collectors of light dues were concerned, but when the alteration was made, and the money instead of coming to Trinity House, went direct to the Paymaster-General through the Board of Trade, no fresh commission was given to collectors as fresh appointments were made, and I do not think now there are any left who receive any commission. It is regarded as part of their duties as collectors of Customs. None were left after the 1898 Act.

Functions of Trinity House with regard to finance.

398. (*Colonel Herbert.*) What I am driving at is the financial aspect of the administrative surveys; certain financial arrangements have to be made; I want to know exactly what are the functions of Trinity House in respect to the financial arrangement?—We are a spending department; we are not a receiving department at all now, and when we want money we get it by an imprest. We send an imprest every week to the Board of Trade, stating the money that we want for the next week, and then we get an authority on His Majesty's Paymaster-General, and he credits us at the Bank of England with the amount that we have asked for.

399. You are a spending authority, and you are a spending authority independent of Parliament?—Yes.

400. For a public service? With regard to those sums that you mentioned, they are all borne on the

General Lighthouse Fund?—On the General Lighthouse Fund—yes.

Steamvessel Service: Appointment of crews,

401. Now, with regard to the manning of that fleet of steamers, how are they manned; do you get men who have served in the Royal Navy or anything of that sort?—No, the officers enter our service as apprentices and work right up. All the officers in our steamboat service have entered as apprentices. So far as the foremast hands are concerned, they simply enter as A.B.'s, and if they elect to remain in the service and can pass the doctor, they ultimately get a small pension.

402. But men who have served in the Navy have no benefit from it?—They have no prior claim. We have, as a matter of fact, men who have served their time and have got their discharge from the Navy, who come and offer themselves to us, and if they are satisfactory they are taken on.

403. But altogether, it is an entirely different service from the Navy?—Quite.

404. And you do not consider you need give any preference to the Navy?—No; you see it very frequently happens that a man is discharged from the Navy because he cannot pass the doctor. Well, he has to pass the doctor to come into our service.

District Superintendents,

405. With regard to your local superintendents, what experience is required?—Our district superintendents are recruited from masters in our steam vessel service.

406. That, again, is an entirely close corporation; it is entirely from men within that service?—That is so; they have been trained in the steam vessel service all their lives, and they know as much of that service as any man possibly can. Of course it is a speciality.

407?—I mean it is a close service?—Yes, it is a close service.

408. (*Admiral Henderson.*) Might I ask one question? Do masters of these vessels have a master's certificate?—Not a Board of Trade certificate, but they pass the Board of Trade examinations for navigation. They have to pass the same examination before the Board of Trade for navigation as the same grade do in the mercantile marine.

409. (*Colonel Herbert.*) What are the qualifications for appointment as district superintendent?—Well, good service all their lives. When there is a vacancy for a district superintendent, the Board would look round and see which of their masters in the steam vessel service was best fitted for the berth, and he would get it.

410. Is there any principle of selection; or is it by seniority?—No; it would be entirely in the hands of the Board. If two men were equal, seniority would count, of course.

411. By whom are the appointments made?—By the Board; by the full Board. That would be a matter which the Lights Committee would go into and would recommend to the Board the man that they would suggest for the appointment.

412. That is the whole Board of Elder Brethren, is it?—That is the whole Board of Elder Brethren.

413. They make the appointment?—Yes.

414. On the recommendation of one of the committees?—Yes.

415. You never admit a man from the outside?—Well, I cannot say that; there have been exceptional cases. For instance, there is one at the present moment. We regard him more as an agent than as a district superintendent, although he has the title of district superintendent; that is the man at Sunderland. He has no steamer; there are no lightvessels on the north-east coast of England, and he merely has a few buoys and some shore lighthouses to look after, and for that reason it is not so essential that he should be one of our own men.

and Wreck Disposal Officer.

416. Then there is another officer mentioned here, the wreck disposal officer; how is he appointed?—He is just one of the staff of officers in the steam vessel service.

417. It is an appointment in the marine service?—Just so, yes. We should not always send a particular man, because all our officers go down to Portsmouth and go through the course for dealing with torpedoes and diving. They all get the certificate from Portsmouth; that is a *sine qua non* when they are appointed as second mates; directly they are appointed second officers they have six weeks' training at Portsmouth.

418. You would only employ a man in that who has been through all the courses?—Just so.

Elder Brethren: Privileges of Honorary Brethren.

419. (*Mr. Ennis.*) With reference to the Honorary Elder Brethren, you have stated in your evidence that they possess neither duties nor emoluments?—That is so.

420. I just want to ask one question with regard to that. Do they possess the power to vote in the election of an Elder Brother when a vacancy occurs?—There is nothing in the Charter to prevent their coming, but as a matter of fact and a matter of practice, they never attend.

421. But I mean they would have power should they so desire?—If they wish to come they have the power to exercise their vote.

Superannuation desirable for Acting Brethren.

422. It is further stated in your evidence that in the year 1871, I think, the number of Acting Elder Brethren was reduced to 13, and that the reasons for the reduction are set forth by Mr. Bright in a letter to the Deputy Master, dated 23rd March, 1869, and the reason is stated as that the sum fixed by Parliament, £7,000 a year, is not, when divided amongst the whole number, sufficient to attract the service of the best men of an active profession while still in the prime of life?—Yes.

423. Well, as a matter of fact now, 35 years after that Act was passed, are not the average ages of the Elder Brethren between 63 and 64 years?—Yes, but they did not come in at that age.

424. I understand, but I ask that as leading up to another question?—Yes, I have got a return here to Parliament.

425. I think we have a copy of that, and it is from that that I have made a rough calculation.—There are some considerable alterations now. For instance, the average age has been lowered by the deaths of Captains Fenwick, Atkins, and Ladds.

426. But in any case, at the time that return was issued the average age, I take it, was between 63 and 64 years? I only merely wished that in a general sense?—Yes, I take it that is correct, although I have not worked out the average.

427. Then, following that question, I should like to ask, do you not consider that it would be desirable that in the case of the Elder Brethren such a power should exist as the power of superannuation, at an age limit on pension?—There is no such power. An Elder Brother elected is an Elder Brother for life.

428. Do you consider that an alteration which would admit of such a power would be desirable?—I think you will see by the correspondence which took place with Mr. Bright in 1871, that this question was very seriously considered then, but the difficulty, as far as I can understand, is one of funds.

429. But though the difficulty may exist with regard to want of funds, I take it that in a general sense you would hold that the Commission would have a right to expect that the lighting of the coasts of the United Kingdom should be at least equally efficient with the lighting of the coasts of any foreign country?—I should say certainly.

430. Having regard to the great volume of trade of this nation, and speaking of its maritime position, that we should expect that efficiency would be the very first consideration?—Yes, that is so.

431. That although cost is undoubtedly an important factor, efficiency should be a first consideration?—Yes.

432. And therefore you would be of opinion, I take it, that if greater efficiency could be obtained by a regulation as to superannuation on pension in the constitution of the Board of Elder Brethren, that that would be a desirable change?—Yes, I should say so; it is an individual opinion; I cannot give you an opinion from my Board.

Younger Brethren: Election and qualifications.

433. I understand that, yes. Well, now, with regard to the Younger Brethren, 205 Younger Brethren exist at present, of which you have undertaken to hand in a list. Is any previous notice required with regard to the election of a Younger Brother? I mean the name of a candidate for the position of one of the Younger Brethren comes before the Board of Elder Brethren

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at any time without previous notice?—The procedure is this: A would-be Younger Brother generally submits his name to an Elder Brother who is personally known to him, and that Elder Brother proposes him at the Board, and gives particulars of his qualification. Then the name is posted for a fortnight in the Common Room of the Elder Brethren.

434. He may then be duly elected by the Board?—Then at the end of the fortnight his name comes up again by his proposer and another Elder Brother to second him, and then he would come in, as a general rule.

435. I take it the effect of that system would be that in the event of a vacancy occurring among the Acting Elder Brethren, and that vacancy had to be filled, that the candidate who may be elected to the position of one of the Elder Brethren must possess, you say here, a master mariner's certificate; I think you expressed some doubt as to whether he is by statutory obligation obliged to hold it or not; it has been the custom of the Board to appoint nobody else?—That is under the regulations which have been passed by the Board.

436. Quite so, but there is no statutory obligation, so far as I can gather, that he must hold a master mariner's certificate?—There is no statutory obligation. These are the rules and regulations: "4. No person shall be eligible to fill the office of an Acting Elder Brother unless he shall have served afloat actually in command of one or more of H.M. ships for at least three years, after having attained the rank of Commander in the Royal Navy, or unless he shall have commanded in the Mercantile Marine on foreign voyages for at least four years. The Mercantile Marine shall be held to include the Royal Indian Marine, or the marine service organised by the Governing Body of any British Colony." Those regulations were passed by a Court of the Corporation in June, 1899, modifying the previous ones.

Election of, as Elder Brethren.

437. Then am I correct in assuming that in the event of an election to the body of Acting Elder Brethren, it might possibly occur under the existing regulations that an outsider, one who was not a Younger Brother, the name of an outsider might be posted; with a fortnight's notice he might be elected a Younger Brother at a day's meeting of the Board, and he might be co-opted by the same Board as an Acting Elder Brother a week afterwards; would not that be possible?—That would be possible.

438. That is to say, that the existing regulation is such that practically anyone in the kingdom who possessed the qualifications with regard to holding a Master Mariner's certificate, and having commanded a ship, and so on, would really be eligible for the post of a member of the Board of Acting Elder Brethren, provided they wished to put him in the position?—Well, I should be inclined to say that is so.

439. (*Chairman.*) Does that depend on the terms of the Charter?—No, Sir, I do not think so. Perhaps it might be as well if I were to read the regulations to you.

440. (*Admiral Henderson.*) Can that be put in?—Oh, yes, I can put that in. "Any person desirous of becoming a Younger Brother shall, upon being proposed and seconded by two of the Elder Brethren, and after notice given at least a fortnight before the proposition is considered, be admissible without ballot, at the pleasure of the Court."

441. (*Mr. Ennis.*) My point is, there is no provision, so far as I can see, whereby anyone elected or co-opted by the Acting Elder Brethren as a member of their body, should necessarily be a member of the Younger Brethren for any specified period previous to his election?—I think that is so.

442. Therefore it leaves the appointment of a member of the Board, an Acting Elder Brother, practically open to anyone holding nautical qualifications in the kingdom.

(*Chairman.*) In theory, but I presume the danger is not very serious in practice.

(*Mr. Ennis.*) No, but still, we are inquiring into the constitution of the bodies.

(*Admiral Henderson.*) It is quite true to say that a man may have been only a Younger Brother for a year, and then elected an Elder Brother.

443. (*Mr. Ennis.*) He might be for one week. Well, for that very reason it might be desirable that there should be a certain period of service as a Younger Brother. Now, with regard to Committees, you have three Committees—the Wardens' Committee, the Committee of Lights, and the Examining Committee. I think I understood you to say, in reply to another Member of the Commission, that none of the members of the Board of Elder Brethren act on two of these Committees?—No.

Committees.

444. Well, could you indicate to us the members of these different Committees—there are 13, probably?—I think I can from memory. The Deputy Master is Chairman of the Board and also Chairman of all Committees. Then the Wardens are Admiral McClintock, Admiral Stewart, and Captains Fenwick and Barlow.

Names of Members.

445. Captain Fenwick is dead?—Yes, as are also Captains Atkins and Ladds. Captain Bell is on the Lights Committee, Captain Thomson is on the Examining Committee, Captain Clarke is Examining Committee, Captain Hoare is Lights Committee, Captain Blake is Lights Committee, Captain Crawford is Examining Committee. Well, then in addition there are Captain Marshall, Examining Committee, and Captain Golding, Lights Committee. Captain Fenwick's vacancy has not been filled, so there is one vacancy in the Wardens of the present moment.

446. (*Chairman.*) Perhaps you would be kind enough to revise that list and bring it up to date, and at the same time indicate which of the members belong to each Committee?—Yes.*

447. (*Mr. Ennis.*) Well, at present we have in the Board four members of the Examining Committee, I take it?—Yes.

448. And the Chairman, of course. That makes a total of five?—No; the Committee consists of four.

449. And the Deputy Master is Chairman of all Committees?—Yes, the Deputy Master is Chairman of all Committees; but he does not sit at the Committees as a general rule. But he is Chairman of the whole Board, and, when necessary, of the Committees.

450. But on the Executive Committee there are four members of the Examining Committee?—Four members.

Work of Examining Committee,

451. With regard to the Examining Committee, what number of those four constitute a quorum?—I do not think there is any question of quorum. If there are one or two absent the Committee sits as usual.

452. You say the Committee is a very small one?—Yes.

453. And therefore, in the absence of any regulations as to quorum, would it not be possible to occur that very important questions might be decided by one or two members?—I do not think so, because then they would defer it. I think any important question involving matters of principle a Committee of one or a Committee of two certainly would not attempt to deal with it; they would defer it. And if it were a matter of urgency to be dealt with, they would go to the Committee of the Deputy Master and Wardens.

454. Who would make a fifth member of the Committee?—Yes.

455. (*Chairman.*) Important questions would also be referred to the Board before any action was taken?—Yes.

and of Visiting Committees.

456. (*Mr. Ennis.*) To the Examining Committee is entrusted the duty to examine the whole lights on the English and Welsh coasts, within what period?—Well, I should think it is about once every two years. I think I say further on that they satisfy themselves.

457. I do not find that in your evidence, Sir, and that is the reason I ask the question?—Yes; the position of all lights, vessels, buoys, etc., are also personally verified by a member of this Committee at least once every two years.

458. By a member?—Yes.

459. But then that inspection of the whole coast-lights, and all the lightvessels, the buoys, and so on, may be entrusted to only one member of the Committee?—No; an Inspecting Committee would generally consist of at least two members. One of these would be a Lights Committee man, and they would do their work in that way.

460. They would do work; but, at the same time, it would be the Examining Committee man who would report to the Examining Committee. The Lights Committee man would not report to the Examining Committee, and therefore this inspection of the coast would rest in charge of an individual member of the

* See Appendix B I.

Committee practically?—Perhaps it would. Sometimes the Examining Committee go away as a Committee.

461. That is the point I wanted to urge: Do they ever go away as a Committee?—Yes, they go away as a Committee, and make periodical inspections round the coast.

462. About how often do these periodic inspections take place?—Every two years.

463. By what I may call a full Committee—by at least two members of the Examining Committee?—By at least two members of the Examining Committee.

464. Because it is stated here that they must be examined every two years by a member of the Committee?—Yes.

465. But you tell me that in practice two members of the Committee go?—When the Examining Committee go away specially for examining work, they go away a Committee of at least two.

466. You say here, also: "The Examining Committee also advise the Board as to the necessity for any additions to the lighting or marking of any particular locality or channel, and the character of the seamarks which may be required." Well, under the system of one member examining only, of course, that is an individual opinion?—No, pardon me, Sir. What would be done then is this: A Visiting Committee's report, whether it is an Examining Committee or whether it is a Lights Committee, is made to the Board. The Board, having then read that report, refers it back to the Examining Committee or to the Lights Committee. Any particular part of the report that might be in the department of the Examining Committee or the Lights Committee they refer back to the respective Committees to come up to the Board with a recommendation as to whether they concur in the views of the Visiting Committee or not, and it would depend on the report to the Board of the Committee as a whole whether any suggestion of the Visiting Committee is carried out.

467. Of whom would the Visiting Committee consist?—If it were an Examining Committee it would probably be an Examining Committee of two members.

468. Well, that is so, that an individual member would report the additions to the lighting or marking of the locality, or character of the seamarks. Then, on the report of the individual member, it might be considered advisable that the Visiting Committee would inspect, in which case two members would go and report a second time upon it?—Yes; but whatever the report of the Visiting Committee was in connection with an altered seamark, nothing would be done on their recommendation pure and simple without its being fathered, as it were, by the whole of the Examining Committee sitting in consultation at the House upon it.

469. Yes; but the whole Committee sitting in consultation would practically be guided by the report and recommendations of the members of that Committee who had actually inspected, I take it. I mean in practice that would, generally speaking, happen?—Well, if it were not so it would not be much good sending the Committee.

Control over Scotch and Irish Boards: Consideration of proposals for New Works.

470. You also say: "The character and efficiency of all lights, etc., under the jurisdiction of local authorities is considered by this Committee, as are also the applications by the Scotch and Irish Lighthouse Boards in respect of changes or additions to the seamarks under their respective jurisdictions." These proposed changes require to be approved by the Examining Committee before receiving the statutory approval of the Board?—Yes.

471. Therefore, unless the Examining Committee report in favour of a recommendation of the Scotch or Irish Lighthouse Boards, it cannot come before the full Board?—You see, the application from the Scotch or Irish Boards would be addressed to the Secretary, and he would read it to the Board first, perhaps, and then it would be referred to the Examining Committee for their consideration and report.

472. Yes; but it is stated here that these changes require to be approved by the Examining Committee before they can receive the sanction of the Board?—Perhaps I put that rather strongly when I say "require to be approved." The Board refer it to that Committee to advise them as to what they shall do.

473. Take a suppositious case. Suppose the Scotch or Irish Board sent up a proposal to the Trinity House. Let us assume that that proposal is considered at a meeting of the Examining Committee, at which, say, two members were present, and these two members refused to report in favour of that proposal to the Board of Elder Brethren, what redress, if any, would the Lighthouse Authorities in Scotland and Ireland have against the decision of two members of the Examining Committee?—But I take it, as a matter of fact, that it is not the decision of two members of the Examining Committee—it is the decision of the Board of Trinity House. They certainly get an opinion from the Examining Committee; but then you must remember there are the other two members of the Examining Committee who sit at the Board, and who would be present then at the Board, although they had not actually been at the Committee when this recommendation was made.

474. But do all the members of the Committee, as a matter of practice, attend the meetings of the Board?—As a general rule, certainly they do. After a certain number of absences, if a member does not attend, he is fined.

475. The point I want to make clear is this: Assuming a meeting of the Examining Committee was held at which two members were present, and assuming those members report to the Board: "We are not disposed to recommend that this suggestion from Scotland or Ireland should be adopted," by what method or what channel would the Authorities in Scotland or Ireland be able to bring that before the Trinity House?—The Board receiving such a recommendation as that, knowing it is only sent up by a Committee at which two members were present, would consider it themselves, and very likely would send it back again. They might possibly send it back for further consideration—such things do occur. It is not to be supposed, because a Committee recommends to the whole Board that such and such a thing should be done, that the Board always agrees to it.

476. (*Chairman.*) Is it not true, also that in the last resort both the Scotch Lighthouse Authority and the Irish Lighthouse Authority have the right of appeal to the Board of Trade against the decision of the Trinity House?—That is so; that frequently occurs. When we do not see eye to eye with the Scotch or Irish Commissioners, they can appeal to the Board of Trade.

477. (*Mr. Ennis.*) You must not misunderstand me, because in inquiring as to the methods of the Trinity House I only want to arrive at the constitution of the Board, and those methods of work which, although in practice they may work perfectly well, may not in theory be correct?—Quite so. May I read this clause of Section 640 of the Merchant Shipping Act of 1894: "The Trinity House shall take into consideration any scheme so submitted to them" (that is by the Scotch or Irish Boards), "and shall make a report, stating their approval or rejection of the scheme, with or without modification, and shall send a copy of the Report to the Commissioners by whom the scheme is submitted."

478. In the event of such recommendation coming now from these other Boards to the Trinity House, has it been the practice to refuse to sanction recommendations of the kind without inspection on the part of the Trinity House?—Yes; we do not always inspect. We have the whole of the papers and their reports, and we have the charts before us—unless, in exceptional cases, the Trinity House send down a Committee, which would be the case where we are not able to agree.

and inspection of sites by Trinity House.

479. I think you were speaking of the Examining Committee?—Yes.

480. You say: "These proposed changes require to be approved by the Examining Committee before receiving the statutory approval of the Board. These duties require at times a personal inspection on the spot before the matter which is being dealt with can be reported on." I take it that these inspections are sometimes made, but not frequently?—So far as the Irish and Scotch are concerned, they are occasionally.

481. In connection with new works?—In connection with new works. There has been one just this past year. That was on a proposal of the Irish Commissioners in connection with Skelligs. They wanted

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to erect another lighthouse at Skelligs in lieu of the one that is there now, and a Committee went over and examined it on the spot before they came to a decision.

Decisions of Trinity House overruled by Board of Trade,

482. Would there be many cases in which a proposal of the Scotch or Irish Lights was rejected by Trinity House without personal inspection of the locality?—Yes; I should say, as a rule, the rejection would be without personal inspection. Perhaps I should say that, under the Act, it does not altogether rest with the Trinity House. The final decision rests with the Board of Trade, because, if the Trinity House, in reply to an application of the Irish Commissioners, say they are unable to grant their statutory approval of it, the whole of the correspondence goes to the Board of Trade under Clause 640 of the Act of 1894, which says: "For the purpose of obtaining the sanction of the Board of Trade to any scheme so submitted to the Trinity House, the Trinity House shall send a copy of the scheme and of their report thereon, and of any communications which have passed with reference thereto between them and the Commissioners, by whom the scheme is submitted to the Board of Trade, and that Board may give any directions they think fit with reference to the scheme, and may grant or withhold their sanction, either wholly or subject to any conditions or modifications they think fit."

483. (*Mr. Ennis.*) As a matter of fact, do you know of any cases in which the Trinity House having refused their sanction to an Irish or Scotch scheme, that the Board of Trade have granted it?—I know, as a matter of fact, there have been some. I do not know that I can mention one to you at this moment. There have been cases where the decision of the Trinity House has been overruled by the Board of Trade.

Head Office Establishment: Appointment of higher officials,

484. On the application of the Lighthouse Authorities of Ireland or Scotland?—On the application of the Lighthouse Authorities.

485. The official establishment of the Trinity House. It is said in your *précis* of evidence here, with regard to covenanted officials, that "appointments are made to the second class and lower grade after competitive examination by the Civil Service Commissioners, five candidates being nominated for each vacancy." How are the appointments made with regard to "more highly salaried posts?—They are promotions.

486. Invariably promotions?—All promotions from the lower ranks.

487. I thought so. I wished to be perfectly sure on that point. That is so. Anyone entering the official establishment has first to pass a competitive Civil Service Examination to enter as second-class clerk?—As a second-class clerk in the upper division or the lower grade.

488. And then the higher officials are all promotions from this?—All promotions to the higher posts are made from the second class.

and of engineering staff.

489. With regard to the appointments on the engineering side—how are those made?—They are made upon the recommendation of the Engineer.

490. Then how is the appointment of Engineer-in-Chief made?—The Engineer-in-Chief, Mr. Matthews, has been in this service over 30 years; he entered under Sir James Douglass, and he was a member of the engineering staff for many years.

491. That is the present Engineer-in-Chief?—That is the present Engineer-in-Chief.

492. I am asking you not with regard to any individual, but is the appointment made of one who has been a member of the staff, and who rises by promotion to this post?—Mr. Matthews is the second Engineer-in-Chief we have had. Prior to Sir James Douglass there was another arrangement altogether.

493. And then the assistant engineers are recommended to the Board by the Chief Engineer?—By the Chief Engineer.

494. Who selects men that he considers competent and efficient for the purpose?—Yes, and from their testimonials.

Conflicting interests of different classes of vessels,

495. Now, with regard to lighthouses. You have referred us here to the second schedule of the Merchant Shipping (Mercantile Marine Fund) Act, 1898, with regard to light dues and the scale of payments. Would I be correct in assuming that the users of the maritime highways on our coasts may be divided, say, into—I put them down as six classes. First of all, His Majesty's ships, the Navy trade, the over-sea foreign trade, coasting trade, steamers on passenger service?—Just across channel; cross-channel service.

496. Fishermen and yachtsmen?—Yes.

497. Well, the interests and the needs of those different classes, though they are in many respects identical, still it is conceivable that they may diverge from each other in many instances; that is, that the needs of the over-sea trade are not necessarily the needs of a coasting trade, with regard to lighting services of the coast?—Well, I should say if they were both steam vessels they would be.

498. Steam vessels, yes; but there is a large proportion of comparatively small sailing vessels?——

499. (*Chairman.*) Interests might diverge with respect to the urgency of any given light?——

500. (*Mr. Ennis.*) Passenger service, for example, cross-channel service?—You mean cross-channel service from here to France.

501. There are, so far as I know, three services existing between England and Ireland, cross-channel daily service; you have a number of others, Newhaven and Dieppe; you know all these routes better than I can mention, but necessarily what would be essential for one branch of these users of the maritime highways, would not be essential for another, the interests would diverge?—That might be so.

502. (*Chairman.*) Is it not more correct to say that the interest diverges respecting the urgency of any particular work? Could it really happen that a particular seamark which is put up in the interests of one class of trades is injurious to another?——

and relative proportions of light dues paid.

503. (*Mr. Ennis.*) No, I do not mean that; but we have had evidence already from the Board of Trade with regard to any expenditure on works of this kind, that if an estimate were exceeded for one year, some works were postponed, put back, and it might possibly happen that if the Lighthouse Authority for a particular country is constituted more in the interests of a particular class than any other, that the interests of that class would have preponderance in the erection of the lights that are suitable. With regard to the impost of light dues on the over-sea trade, and on the coasting trade, would one not be justified in assuming that the coasting trade pays a considerably larger sum in proportion to the registered tonnage of the vessels engaged in the foreign trade?—Well, I think it was to rectify that a good deal that the method of charging light dues was altered at this time.

504. But also even with this incidence, it is stated here that if the ship is a home-trade ship—and I think this clause would cover more fully what I mean to convey—"Provided that no steamer shall be required to pay more than one shilling and fourpence-halfpenny per ton, and that no sailing vessel shall be required to pay more than one shilling and a penny half-penny in any year." Now, as a matter of fact, do not the sailing vessels pay more in proportion to their gross tonnage capacity than the steamers. Is not a steamer's registered tonnage, by reason for deductions for engine-room space and so on, very frequently lowered very much below her carrying capacity?—I think that is so under the tonnage laws. The foreign-going steamers are by far the largest aggregate tonnage.

505. I understand that. The one point I want to make clear is, assuming from the definition given here, "no steamer shall be required to pay more than one shilling and fourpence-halfpenny per ton"; now, a steamer in the passenger service, making daily passages between these various places, necessarily pays 1s. 4½d. straight away?—Home trade sailing vessels only pay 1d. per ton for ten voyages, and home trade steamers 1½d. per ton for ten voyages.

506. Let me put it to you in this way: Suppose we take a tramp steamer, engaged in carrying coals, say, from a Welsh port to an Irish port, or any home trade port, that steamer will in a very short time—making such rapid and frequent voyages as she does—run her contribution to the light dues up to her maximum rate of 1s. 3d. per ton; is not that so?—Yes.

507. Whereas a steamer going foreign—going to the New Zealand trade—will not reach her maximum capacity of payment in a year?—No, probably not.

508. She would not work up to her maximum capacity. The only other point I wanted to get from you is that the coasting trade, in proportion to the carrying capacity, really pays a larger proportion of the light dues than the over-sea trade?—I should like

to go into the figures before I could give an answer to that.

509. (*Chairman.*) But in any case it does not rest with the Lighthouse Authorities to decide what the scale of payments should be?—No; we could give you this information by going into the statistics at the office; I could not say right off.

510. (*Mr. Ennis.*) I should be very glad to have an approximation of the information?—Very good.

Steamvessel service: System of attending on lightvessels and rock stations.

511. Now with regard to the steamers in England and Wales under the direct control of the Trinity House. You have here a list of the lighthouses, lightvessels, and so on, which are under the control of the Trinity House, and you have a fleet of eleven steamers kept constantly employed. What I wish to know is with regard to the service of the lighthouses, isolated lighthouses on the detached rocks at sea and the lightvessels; is the service of conveying provisions, stores, and shifting men, and all that, performed by your own steamers, or is it performed otherwise?—It is performed by our own steamers. All our lightvessels invariably are relieved by our own ships, and tended by them in every way.

512. That is to say, provisions are put on board?—So are the majority of the rock lighthouses. There are some exceptions where the relief is done by boat. To suggest one—Longships—which is a short distance from the shore. That is done from Sennen by a boat.

513. Could you give us particulars of the few cases in which the relief is done by boat and the cost of doing it?—Of the rock stations?

514. Or lightvessels?—There are no lightvessels.

515. The rock stations which are tended by boat and the cost of their relief, because I think it will be useful for us later on in comparing similar services in Ireland and Scotland?—Yes.

516. Any lighthouses that are tended by contract, what the cost per trip or average is?—Yes.

Control of local lights.

517. You say with regard to local lights, "The duties and responsibilities of the Trinity House in respect of local lights (*i.e.*, seamarks belonging to local authorities), are defined in the 652nd and following sections of the Merchant Shipping Act, 1894." In your opinion, would it be desirable or advisable that local authorities should be empowered to erect or maintain lights outside the immediate area of their harbours; that is, that their lights should extend to any distance from the coast line and come into what I may call the maritime highway used by vessels not bound to that port?—Well, I think it would be a very difficult thing to make a hard-and-fast rule. I should think every case of that kind should be dealt with on its merits.

518. But, as a general principle, I assume you would lay it down that it would be more desirable that the General Lighthouse Authority of the country should deal with all the lights at a reasonable distance from the coast?—That would be useful to the general passing trade.

519. Because, necessarily, a light established by a local authority and not efficiently attended, must cause disaster to passing ships?—Under such circumstances as you state, it must, of course.

520. And therefore it would be desirable to confine the administration of local lights to the limited area in connection with the harbours or estuaries in which these local authorities act?—Yes.

521. With regard to the cost of the French Lighthouse Service, I think you have told us there was practically no result from the inquiries that were made in that direction?—That is so.

Payment for collection of light dues:

522. Just before there was a question asked by Colonel Herbert about the collection of the light dues. I think you said a sum of £7,500 is in the estimates as being paid to the Customs for that collection?—Yes.

Experiments: Expenditure on,

523. And that practically amounts to about 1½ per cent. on the total sum collected?—Yes.

524. With regard to experiments, I take it that you are entitled to expend money on experiments where it is desirable to do so?—Yes; there is an amount set down in every year's estimate, which is sanctioned by the Board of Trade, for experiments.

525. Could you give us the total expenditure—say during the past ten years—on experiments by the Trinity House sanctioned by the Board of Trade?—Yes; I could put in the returns, if you wished it.

526. And have you any information, or could you tell us whether foreign lighthouse authorities expend more or less on experiments than our own?—We have no information.

Areas of silence tested at Lundy.

527. In the event of something coming to your notice unofficially—say, such as at a recent inquiry into the stranding of the "Montagu." There was a statement given in evidence there that at Lundy there was an area of silence in which the fog-signal was not heard. Well, now, when a statement of that kind is made before a tribunal such as the court martial which was held in this case, would you consider it desirable that you should make experiments in that matter to ascertain whether such an area did exist? I mean, would it be the custom of the Trinity House?—As a matter of fact, they have done so.

528. With a view to remedying it if it is found?—With the view of ascertaining whether there was a sound shadow or a silent area.

529. And if you ascertained there was a silent area, I understand steps would be taken to put that right?—Certainly, if it was regarded as possible to remedy it.

530. (*Chairman.*) Do not the results of experiment show that it is impossible to avoid silent areas in connection with fog-signals?—The configuration of the coast frequently produces a silent area to vessels approaching from certain directions. At the present time we are constantly having complaints at Flamborough that they do not hear the explosive signal there coming down or going up—I do not quite know which. But they complain they do not hear it, and they immediately assume that the signal is not sounding.

531. But, in addition to that, do not experiments go to show that there are concentric areas in which the sound is heard and not heard alternately?—In varying conditions of the atmosphere that is shown.

532. It varies with the varying conditions of the atmosphere?—The Hydrographer of the Admiralty has put this caution in the preface to the Admiralty List of Lights:—"Fog Signals.—It has been clearly shown: (1), That fog-signals are heard at greatly varying distances. (2), That under certain conditions of atmosphere, when a fog-signal is a combination of high and low tones, one of the notes may be inaudible. (3), That there are occasionally areas around a fog-signal in which it is wholly inaudible. (4), That a fog may exist a short distance from a station and not be observable from it, so that the signal may not be sounded. (5), That some fog-signals cannot be started at a moment's notice, though every endeavour will be made to sound them as quickly as possible after signs of fog have been observed. Mariners are therefore warned that fog-signals cannot be implicitly relied upon, and that *the lead should never be neglected.*"

Submarine bell.

533. (*Mr. Ennis.*) Has the Trinity House undertaken any experiments in connection with this new suggested submarine bell?—Yes; they did last year, at the North Goodwin Lightship. They made a series of experiments in connection with that bell there.

Gibraltar:

534. (*Admiral Henderson.*) You say here, "the Channel Islands and the adjacent seas and islands, and at Gibraltar." Does the Trinity House do any work at Gibraltar except what you mentioned just now?—The lighthouse at Europa Point belongs to the Trinity House.

535. And is maintained?—And is maintained.

Collection of light dues at,

536. And how do you get the dues? Are they collected at Gibraltar?—They were collected at Gibraltar.

536a. And passed on to you?—They are now done away with. Since 1898 the dues from Gibraltar have been abolished. Prior to that they were collected at Gibraltar and sent direct home.

537. Is the expense of the lighthouse at Gibraltar paid out of the General Lighthouse Fund now?—Out of the General Lighthouse Fund now.

Trinity House: Abolition of Elder Turns.

538. No charge made on the Colony itself. I see that "Elder Turns" were derived from fees charged on vessels entering or leaving the Thames. Are these special tonnage dues still collected?—No.

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539. The £7,000 allowed to the Elder Brethren?—That is now paid out by the General Lighthouse Fund. So far as the Trinity House are concerned, we merely collect light dues.

540. Do you know whether they are collected or not?—I should say not.

541. There are no tonnage dues collected?—I do not know what the Thames Conservancy might collect; but certainly those "Elder Turns" are abolished.

542. There is no sum that you have that remunerates the Elder Brethren except it comes from the Lighthouse Fund fees?—From the General Lighthouse Fund.

543. (*Chairman.*) Then it is not correct to say, as I think you said in your evidence in chief, that "thenceforward (that is, from the year 1822) these fees were credited to the Lighthouse Revenue"?—Yes; but do you not see, Sir, since then the incidence of light dues has been altered altogether?

544. You mean since 1898 they have no longer been collected?—Yes.

545. (*Admiral Henderson.*) You do not think there are any?—No; there are no special dues of that kind.

Younger Brethren: Position of,

546. How often do Younger Brethren attend the Trinity House?—The majority of them are men on active service.

547. They are not obliged to attend at all?—They are not obliged to attend at all.

548. Have they any power if they attend?—They get a formal notice once a year to attend on Trinity Monday for the purpose of assisting at the election of the Master under the Charter, and then they attend that Court and can vote for the election of Master.

549. What privileges have they?—I do not know that they have any special privileges, except that they are exempt from serving on juries. That is one of the old privileges.

550. Have they any corporate privileges?—I do not think they have any at all, except, as I say, their privilege of attending at the annual court which takes place on Trinity Monday, when the Prince of Wales, who is Master at the present time, generally attends, and is formally elected as Master of the Corporation.

551. Year by year?—Year by year.

552. Re-elected?—Re-elected.

Committees: Agenda of meetings,

553. You say these committees meet on Tuesdays and Fridays; have you any record of proceedings and attendances at the meetings?—Oh, yes, agendas.

554. Can you produce them?—Yes. You mean to say you wish a copy of the agendas?

555. What I think would be best to produce is a copy of the agendas going over some period of time on the Tuesdays and Fridays; what action is taken, and to let us see what are the attendances at the meetings?—Yes.

and attendance of members.

556. How the business is managed, in fact?—For what period would you like that?

557. Well, for a year?—Of course, we will give it.

558. That would be rather a tall order?—It would be rather a tall order.

559. A period of three months?—You wish to have practically the attendances of the Elder Brethren for three months.

560. And the agenda of their meetings; a record of their work for three months, April, May, and June?—Yes, or we will begin at October, if you like, when we all get back from the holidays; October, November and December, whichever you like.

561. Say April, May and June.—April, May and June.

562. (*Chairman.*) The agenda and the minutes?—One book contains both the agenda and the minutes.

563. And the list of attendances?—Yes.

Election of Wardens.

564. (*Admiral Henderson.*) Wardens; I do not think it is quite clear how many Wardens there are?—Four.

565. And they are elected by the Elder Brethren from amongst their number?—Yes, that is so.

Inspection of seamarks by Visiting Committees.

566. "Vessels inspected by a member of the Lights Committee at least once a year, and lights under local jurisdiction once every four years"; is there any record of these inspections?—Of which?

567. First of all by a member of the Lights Committee at least once a year?—Yes; there is a book kept at every station, and on committees visiting they record their visit and what they find, whether the place is in order or anything that is wrong.

568. Is the Elder Brother who goes round accompanied by the superintendent of the district?—Sometimes when a committee goes on to a district they occasionally have the district superintendent with them.

569. Have you any record at Trinity House itself?—Yes, we have, in their reports.

570. Have you any reports of these committees on their inspection?—Yes, they always report when they return.

571. Can you let us have copies?—We can give you copies of their reports.

572. Is a year too long to ask for?—Copies of all the committees' reports for a year?

573. Copies of all the reports of inspection?—We could give them to you for a year.

574. (*Chairman.*) I should say six months?—Six months.

575. (*Admiral Henderson.*) "To the Examining Committee is entrusted the duty of periodically examining the whole line of English and Welsh coast, and any changes in the navigable channel are duly considered by them with a view to effecting such alterations in marking as may be necessary." How is this done?—They have one of the steamers, and go afloat.

576. One or more of the Examining Committee?—Two generally, at least, on a duty of that kind.

577. Are not the superintendents of districts responsible for the correct position of the buoys and beacons?—Yes, it is a portion of their duty, for the performance of which they are responsible to the Board.

578. What is the good of this yearly examination, then, and the four-yearly examination in the case of the local lights?—Well, the district superintendent has no duties in respect of local lights.

579. No, I am speaking now of your own lights. What is the use of an officer going from the Trinity House to inspect a buoy once a year, because a buoy wants constant and frequent inspection, and wants inspection after almost every gale of wind, to see it has not shifted, and any question affecting a lightship or a beacon or buoy must be known to your local superintendents at once?—Well, I take it there is advantage in supervision in any man's work, and there is the duty to look round and see that the district superintendents are doing their work.

580. There is a certain amount of necessity about that; but my own impression is that inspection must necessarily be, considering the duties of members of the Committee, rather of a perfunctory character, that they cannot possibly go round and properly inspect the large number of buoys?—I beg your pardon; when the Examining Committee go away to inspect a particular district—and, of course, they do it in districts—they go and personally verify the position of every buoy in that district, and see that it is down in its position according to the book of marks and angles. They take with them the official buoy book, which gives the exact position and depth of water the buoy should be in.

581. And they go and examine the position of each buoy?—Yes, with their own sextant in hand.

582. And how do they go? Every two years it is said.—At least once in two years.

583. "All lighthouses, lightvessels, beacons, etc., round the coast are visited and inspected by a member of the Lights Committee at least once a year, and all lights under local jurisdiction once every four years"?—That is the Lights Committee's inspection.

584. Who does the floating seamarks?—The Lights Committee; it is the Lights Committee's function.

585. But this every two years?—Every two years means to say that the coast must be divided up into districts; one committee will take the east coast, and another committee will take the estuary of the Thames.

586. Have you got any record of these inspections?—Yes.

587. Will you let us have one?—Yes.

588. Are they published regularly, the reports?—No, they are not published.

589. You get them in as reports?—We get them in as reports.

590. Will you send us a copy of six months' reports, or a year's reports?—I have already got that down, Sir; Committee's reports for six months.

Wrecks:

591. Can you give us a list of the wrecks that have taken place during these last twelve months, that you have had to deal with?—That we have dealt with?

592. Yes.—Yes.

593. In the last year?—Yes.

Notices to Mariners:

594. "All Notices to Mariners relating to seamarks are prepared by the Examining Committee." Now, what part does the Hydrographic Department of the Admiralty take as to that?—In the Trinity House Notice to Mariners?

595. Yes?—None whatever.

Issue of, by Trinity House and by the Admiralty.

596. But all the hydrographical notices are issued by the Hydrographical Department of the Admiralty?—The Admiralty notices are; they are quite distinct from the Trinity House Notices to Mariners.

597. The Trinity House Notices to Mariners are entirely different from the Hydrographic notices?—Yes.

598. In the Hydrographic notices the Admiralty do not put any notices of the alterations of a buoy?—We send a copy to the Hydrographer of our notice, and the Admiralty re-issue it.

599. As a hydrographic notice?—As a hydrographic notice.

600. Then what becomes of your notices?—They are issued.

601. What is the good of a duplicate issue?—We issue them in the first instance; the Hydrographer issues them for the Admiralty.

602. (*Colonel Herbert.*) Does he incorporate yours?—Yes, he would say, "The Trinity House has given notice, etc., etc."

603. (*Admiral Henderson.*) There is a duplicate publication?—But the Hydrographer does not issue it for the information of the public. He issues it for the information of His Majesty's ships.

604. Oh, no, I beg your pardon, the hydrographic notices issued to mariners are published also, I think?—I do not think they are published in the way that ours are. Ours go to the Customs House and to the principal shipowners, and we send a batch of each notice to each port in the United Kingdom if they are important notices.

605. As to any alteration of a light or buoy?—As to any alteration of a light or buoy.

606. Do you include in them any hydrographic notice—such as the inspection of a shoal?—If we noticed it we should communicate that fact to the Hydrographer, and he most likely would issue a notice.

607. (*Chairman.*) That would not be included in your Notices to Mariners—the extension of a shoal?—Not unless the extension necessitated a change in the position of a seamark. As to our reason for altering the position of a buoy, we should say: "Consequent on the alteration of the shoal, it is necessary that the buoy be moved."

608. Would your notices be earlier available for the nautical community than those of the Hydrographer?—So far as Trinity House seamarks are concerned, certainly they would, because the Hydrographer would not know anything about it until he got our notice into his hands.

Wreck notices.

609. The question of time may be of importance. It is desirable that the notice should be given as early as possible?—For instance, the wreck notice. Directly we get notice of a wreck and its position, we put a wreck-buoy down—and at once there is a notice to mariners out, within 24 hours, if it is a danger to navigation.

610. (*Admiral Henderson.*) "These duties require personal inspection"—that is, the Irish and Scotch lights—"before the matter which has been dealt with can be reported upon." Have you any record of these personal inspections?—Well, I gave one instance just now—of Skelligs. A Committee of Elder Brethren went over to Skelligs.

611. That is one. But in that sense they are not frequent?—No, they are not frequent; it is not a matter of course.

612. Where do the funds of the Pilotage Committee come from in the pilotage arrangements?—They are derived from a poundage on the pilot's earnings, and also from the fees that are obtained from the pilots for their licences.

Pilotage Committee: Source of Funds.

613. Have you a statement of account of these?—Yes; I merely put that in my memorandum because we were anxious that the Commission should know.

614. I do not know whether it comes into the question of the administration of Trinity House at all or not. But there comes the next point questions have been asked about—that is, about committees dealing with corporate matters, such as charitable pensions. What are the corporate funds?—They consist of money that has been left to the Corporation in years gone by for special charitable purposes.

Corporate Funds: Source of,

615. Have you to account in any shape or form for that?—Only to the Charity Commissioners.

Control of,

616. Have you any published return?—We send the account every year to the Charity Commission.

617. What are the duties of the two principals under you?—Well, there is one in the Lights Committee's Department, and there is one in charge of the Secretary's and Finance Departments, who in my absence acts for me.

Head Office Establishment: Duties and salaries of.

618. Who nominates the five candidates for one vacancy?—The Elder Brethren in turn.

619. They nominate one?—Five Elder Brethren each nominate one man, who has to meet the qualifications laid down by the Civil Service Commissioners.

620. I think you said you were going to produce a list of the establishments and the salaries. I think that was asked for?—Yes; I will put that in

621. And the actual cost of the administration of the Lighthouse Fund?—Well, I cannot give you that in any better form than as it appears——

622. As you submit it to the Board of Trade?—As it appears in the General Lighthouse Fund's yearly account, which is presented to Parliament.

Expenditure: Form of estimates submitted to Board of Trade.

623-4. Is that the only thing that you submit to the Board of Trade?—Oh, no. I have got here blank forms showing our method of submitting the estimates to the Board of Trade. In the first instance, in October or November of each year we submit to the Board of Trade a preliminary approximate account. We do that for their convenience, because they like to know how much we are likely to want. Then, in the beginning of the year, we send a detailed statement or estimate to the Board of Trade, and in that way show the expenditure required under each abstract. We have eight abstracts. Abstract A is lighthouses, Abstract B is lightvessels, Abstract C buoys and beacons, Abstract D steamvessels and district lighthouses, Abstract E is office and house expenses.

625. I will not trouble you to go on with this. Are these for maintenance?—Those are for maintenance, and in each abstract we give—now, for instance, I look at Abstract A, Statement No. 2. There we give the number of principal keepers, with their salaries; the number of assistant keepers, the number of supernumeraries—everything.

626. Have you got anything for a past year that will show us what the transactions between you and the Board of Trade are, and how you put your demands and requisitions before them? And can you give us something a little closer to an estimate of expenses than this extract?—I will give you, if the Commission would like it, a copy of the estimates in detail that were submitted to the Board of Trade last January for the year ending March, 1907. Would you like that?

627. Yes, please—something of that sort?—While we are dealing with these estimates, perhaps I might be allowed to say that the Board of Trade convey their sanction year by year in the following terms:—"I am directed by the Board of Trade to convey to the Trinity House the statutory sanction of the Board to the estimated expenditure in respect of maintenance of new works as set forth in the enclosed statement, amounting to £————, on the understanding that no increase of salary, wages, or allowances shall be made, nor any new works or extensive repairs be undertaken, although included in the estimates, without the special sanction of the Board of Trade." So that we are completely tied. We can do

Form of sanction given by Board of Trade.

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nothing outside paying the men their wages and carrying out anything that has already been approved.

628. But, otherwise, practically you are irresponsible?—That is so.

Light dues: Collection of, by H.M. Customs.

629. Now, I wanted to ask a question about the collection of the light dues. How do you know they are properly collected?—No ship can have a Customs clearance unless she has paid her light dues under the Act.

630. You trust the Custom House authorities to do that at home?—We are bound to.

631. And you practically do not interfere unless there is some question brought directly to your notice by them?—It is entirely in the hands of the Custom House.

632. You do not know whether they collect all light dues properly or improperly, except that you suppose they are bound to?—No; that is not our intention at all. But there is the fact that the collector is forbidden by the Act to give a Customs clearance to the ship before she has paid her light dues.

Rock Lighthouses: Number under Trinity House.

633. How many rock lighthouses are there out of the total number?—I cannot tell you offhand; I should think there are about eight or nine rock lighthouses.

District Superintendents: Payment and duties of,

634. The superintendents of the districts; what is their pay and allowances; it would be all seen in the accounts?—Particulars of pay of all grades in the service are contained in the Service Regulations.

635. And they are entirely responsible for the efficiency of the whole district, its beacons, and the working of lighthouses?—Yes.

636. And the discipline of the men as well?—Oh, yes, they see to that. Of course, they take nothing upon themselves outside their instructions in the Service Regulations without first communicating with the Trinity House.

637. Without reference to the Trinity House?—Without reference to the Trinity House.

638. Outside what they are supposed to do, except, of course, in emergency; accidents, something of that sort?—Oh, yes.

639. All the arrangements about analyses, examination of samples, and matters of that kind, is what is done in all establishments, as a matter of course?—Yes.

Chain Cables: Testing of,

640. "The chain cables, rope, etc., are subjected to special test at the Blackwall workshops, and rejected if they fail to pass them." Are those your own workshops?—These are our own workshops at Blackwall.

641. And you have a chain testing house there?—We have a chain testing house there.

Local Lights: Number of, in United Kingdom.

642. Have you a complete list of the local lights, beacons, and buoys in the United Kingdom, or in England and Wales?—Well, the Admiralty list of lights contains particulars of the whole of the lights in the British Isles.

643. You know what you have to do; therefore have you any tabulated list of the actual numbers?—Oh, yes, we have.

644. I should like to have it?—Yes.

645. Particulars of the local lights, the actual numbers, what it means. What relation does the local light service, so to speak, bear to the Trinity House service? Do the Admiralty base their list of lights on your information entirely?—They always send a proof of the new edition down to us for correction.

646. Yes, but where do they get their list of local lights from; where does the Hydrographer get his list of local lights?—You see, many of these local lights that appear are merely pier lights; a great many of them are promenade pier lights; they are all down.

647. One wants to know roughly what it means. I see about the question of assistance to local authorities you said you were to give some particulars?—Yes.

New Works: Initiation of.

648. Speaking generally, how is the initiation of any new works started; what is the process of initiation of new work?—Well, there would be more ways than one; for instance, we might get a petition signed by some association, some mercantile marine association, asking for a light.

649. Am I correct in supposing that it is generally done by some local or other authority?—No, I do not think so. Of course, going round the coasts, the committees deal with these matters.

650. Can you tell me how often a lightvessel or an off-shore lighthouse has to be visited?—The lighthouse, under ordinary circumstances, is visited once a month.

Lightvessel Crews and Rock Lightkeepers: Relief of,

651. And the rock lighthouses?—And the rock lighthouses at the same time. There are one or two rock stations where they are relieved fortnightly.

652. That is in general terms?—That is in general terms; it is a monthly relief.

653. When the crew are taken off the lightship or the lightvessel once a month, do they come to a shore station, or do they get a holiday?—They go back to the depôt of the district from which the steamer comes.

654. And how long do they remain on shore—for a month?—They are supposed to have a month on shore, but the lightvessel's crew consists of nine men and two officers, and there are always seven men on board; that is, six men and one officer. The two officers exchange month and month, and the rest of the crew get two months at their station and one month on shore.

655. So that the lighthouse keepers themselves practically exchange with the crews of these vessels?—Oh, no, the lighthouse service is a totally distinct service from the lightvessel. The lighthouse men are landsmen pure and simple. They enter as supernumerary keepers between the ages of 19 and 28, and they are trained as light keepers, and then are drafted off to lighthouses according to where they are wanted.

656. Have you any information which gives us any particulars of your system of management in that sort of way? Can we see what your arrangements about your lighthouse keepers are?—Yes, I think if you were to study the Service Instructions you would find it there.

657. What I understand is that a lighthouse keeper remains on a rock lighthouse for a month, and then gets a month's spell on shore?—No, he gets two months on the rock.

Employment of, while on shore.

658. During which he is employed on a shore lighthouse?—No, he returns to the depôt; he is a sort of handy man at the depôt for the month that he is on shore. At some of the stations I should tell you—one or two of the rock stations which are not relieved by the tender, but are relieved by boat under contract—I shall give you a list of these in reply to Mr. Ennis' request—those men would be practically doing nothing their month on shore, because they are relieved from a place some distance from the depôt, and they simply live there with their families.

659. You said something about the crews?—Those are the lightvessels, the crews of the lightvessels; the four men that come ashore return to the depôt from whence the steamer went to relieve them, and there they are employed at the wharf cleaning buoys, and chain cables, etc., and, in addition to that, they occasionally go to sea in the tenders to assist to make up the crew.

660. Therefore I understand you to say that your service consists of a set of lighthouse keepers who are in the big lighthouses, and a set of sailors practically who do the work of the lightvessels and the tenders?—Yes.

Telegraphic communication with lightvessels: Extent of use.

661. With what lightvessels is telegraphic communication established?—We have four, I think; there is the North Goodwin, the Kentish Knock, the Shipwash and the Hasborough.

662. Does the cost fall on the Lighthouse Fund?—Well, as far as I know all the cost falls on the Lighthouse Fund; but that information you would get from the Board of Trade.

Value of,

663. Is it really found of any great value?—Do you ask me for my personal opinion?

664. Yes?—I should say it is of very little value, to the Light Service, and it has only been introduced for the saving of life and property.

665. It is really only required in one or two particular places, I suppose?—As a matter of fact, the sound signals, the system of signalling when assistance is required from the shore, has always been found, as far as my experience goes, quite sufficient for the purpose. I may say we are now fitting some of the lightvessels with wireless telegraphy.

666. You are?—Yes, that was at the request of the Board of Trade.

667. Do you think it is likely to be of any use?—It would be of no more use to our service than those vessels which are connected by submarine cable, but that also is not for commercial signalling.

668. It is for the case of saving of life?—Yes.

669. Do you know what stations are going to be wireless?—Yes. There is the East Goodwin, South Goodwin, Gull, Tongue, Sunk and the Cross Sand. I think they are all under way now except the Tongue.

Light Dues: Increase or reduction of, rests with Board of Trade.

670. A question has been asked; does Trinity House increase or decrease the dues?—No.

671. It does not?—No, that is the Board of Trade.

672. It just accepts the money that the Board of Trade gives it, so to speak; is that correct?—You may put it that way. The Board of Trade decide whether the General Lighthouse Fund is in such a condition as to justify any alteration in the light dues.

673. Is there any accumulation of the Lighthouse Fund?—There is at the present moment, and you are probably aware that after next April the present Government have decided to further reduce the light dues by 7½ per cent. for three years to bring down the balance which remains in hand.

674. Where is the balance?—In the hands of the Board of Trade.

675. Do you get any interest for it?—It is in this paper here.

Expenditure of Trinity House: Effect of Board of Trade control.

676. What is the effect of the Board of Trade overhauling your expenditure?—The general effect is this—that we cannot spend any money without getting the Board of Trade's sanction for it.

677. Are you pretty well certain you are going to get sanction for what you ask, or do they very often quarrel with you?—We are very careful not to ask for anything that we do not feel perfectly justified in asking for.

678. I think you have said you were going to show us how the estimates are submitted; you are going to give us a copy of the Estimates?—I am to give you a copy of those for last year.

679. Do you find that the work you have to do with the Board of Trade gives rise to a good deal of office work on the part of the Trinity House?—Well, of course, there is a good deal of work naturally that goes on between ourselves and the Board of Trade, they being, as it were, a supervising Department; for instance, all our accounts go to the Board of Trade every quarter.

680. Is your correspondence with the Board of Trade very considerable?—I should not say it is very considerable. Anything that requires to be sanctioned we write and ask for it, and we get a reply.

681. Do you look on it as a matter of form or business?—I should say it is certainly business. I do not think the Board of Trade would look at it in any other light.

Responsibility of Trinity House.

682. Well, then, at any rate, the Trinity House has no responsibility, and the question becomes, what is the good of the Trinity House?—I do not know, I am sure, about that, Sir. Of course, the work must be done somewhere.

683. The work must be done; you do the work, and do not have any responsibility?—Oh, yes, we do; we have a considerable amount of responsibility; we have the responsibility of keeping everything in an efficient condition.

684. I notice from reading the correspondence attached to your evidence, especially the letter, I think from Captain Vyvyan of the 7th May, 1904, that it puts the whole responsibility on the Board of Trade, that the Trinity House is very shy of any question of responsibility really?—What letter are you speaking of?

685. I am speaking of the letter of the 7th May, 1904. It is clearly shown from that that you do not accept any responsibility. The general tenor of the letter is to put the whole of the responsibility upon the Board of Trade for everything?—Certainly, the Trinity House has the responsibility of administration, to see that everything is kept in proper and efficient order. The Board of Trade would have to show, as you say, that the Trinity House is not required. I take it that is your meaning, is it not?

686. My own experience is that you do not get efficiency without responsibility?—Well, we are responsible; surely the Trinity House is responsible for the general efficiency of the Service.

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687. I asked for some inspection returns. This is an inspection return ordered to be printed by the House of Commons, 26th March, 1906. This is an inspection of local lighthouses by some members of the Trinity House and of local lighthouses by the Scotch and Irish Commissioners. I want to know who made those, and when they were made; who made those inspections, the names of the Trinity House members who made the local inspections?—We can give that. That is the last printed Report to the Houses of Parliament on local lights.

Steamvessel Service: Work of S.S. "Irene."

688. A question was raised in a previous Committee about the "Irene," what are her duties?—Well, she is employed the same as other vessels, in addition to which she is generally used as the inspecting ship.

689. Whenever any members of the Board have to go afloat?—Yes, she would be used for that.

690. Is she fitted as a yacht?—She is fitted the same as the other vessels are fitted.

691. But is she fitted as a yacht; how many people would she accommodate?—She is fitted with comfortable accommodation for the Committees afloat. In the after-part she has got every accommodation for the Committees that have to go afloat.

692. Have you got any record of the work that she does or that these vessels do; does she keep a log?—Yes, she keeps a log the same as any other vessel keeps a log.

693. I think I should like to see a copy of the "Irene's" log?—For how long?

694. I think we had better say a year?—I think we had better send up an original log for a year.

695. The original log would do for this year, from the 1st of January up to the 1st of October.—Very well.

Divers: Employment of, by Trinity House.

696. Have you any suggestions to offer as to any improvements in the system of administration; you yourself?—Well, Sir, I am here to give the Commission information as to facts.

697. And you have no suggestions to offer?—I have no instructions from my Board to make any suggestion of that kind.

698. You mentioned divers, I think; how many divers do you employ?—We have eight seamen divers. There are two attached to the London District, two to the Milford District, two to the Yarmouth District, and two to the Harwich District.

699. And you employ them in wreckage and examining moorings?—Yes.

700. They go to Portsmouth for a course of instruction in the "Excellent" first of all?—Yes.

701. And they are men you trust to do your diving operations in connection with wrecks?—Yes.

702. Do you ever have to call in further assistance?—No, we do not now; we do it all ourselves.

Aberdovey: Application for harbour lights at,

703. There is a question about a fishing community or some light at Aberdovey; the Lancashire Sea Fisheries Joint Committee state that they have endeavoured to establish suitable lights at Aberdovey with a view to it being available as a harbour of refuge for fishing boats. Now, has the Trinity House gone into that question?—I think we had an application of that kind. There are already two or three buoys to assist vessels going into Aberdovey; I think there are three buoys. We decided that we were not justified in spending any more money from the General Lighthouse Fund for such a purely local purpose.

704. Speaking in general terms, have you very many applications from ports that are entirely used by fishing vessels for lights?—No, I do not think we have.

705. I mean to say ports that have no dues, so to speak, and no harbour board, and no authority; are there many?—No, there are not. You see, the general rule would be that we are not able to spend the General Lighthouse Fund excepting for the benefit of general navigation, and the Board of Trade would not allow us.

Fishing Vessels: Exemption of, from payment of light dues.

706. Is there any reason why, in order to meet the views of those fishing vessels, the fishing vessels themselves should not be subject to light dues?—Well, they never have been.

707. I know, but fishing vessels now are nearly all steamships, and make great use of the lights, and go long distances; in fact, they are nearly always fishing outside the local light range?—This is not our func-

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Jurisdiction of General and Local Authorities,

tion. It is for the Board of Trade to decide such a question as that, or the Legislature.

708. In that sense you consequently have a little dispute as to the border line between you and the local authorities?—Sometimes those cases do arise, where we consider that it is a matter for the local body to find the necessary money.

709. (*Chairman.*) Where there is no local authority with any power to put up local lights, may it not still sometimes happen that local lights would be desirable for local interests?—Then, of course, we would consider it. Those cases very rarely occur; in fact, I do not remember any such case as that at the present moment. Under the Clause—I know the one you mean—it is Clause 653 (3) of the Merchant Shipping Act, 1894. I really do not remember any case ever coming to the Board for a light on that plea.

710. They would not put forward that plea. They might contend that it was the duty of the Lighthouse Authority to light the coast, and that the light was required on that particular place, but the reply of the Lighthouse Authority might be that it was out of the fair-way, and it was not of sufficient benefit to trade in general; that is so, is it not?—That is so, yes.

711. Do cases of that kind often arise?—No, they do not; very rarely.

Lightvessel, crews: Salaries.

712. (*Mr. Ennis.*) On Admiral Henderson's question about the rock lighthouses and lightvessels, I wish to ask, can you tell us first of all with regard to the lightvessels what are the standing wages of the officers and crews of those vessels?—They are all here, Sir, full particulars of every grade of the service; the pay of every grade.

713. If they are in that book I shall not trouble you?—You have a copy of that book.

714. Lighthouse keepers the same, I presume?—Yes, full particulars.

and provisioning of

715. Well, with regard to maintenance; I mean do the crew feed themselves?—They feed themselves; that is included in their wages.

716. If the tending vessels only tend the lightvessels once a month, how are the provisions sent off to the crew?—They take their own provisions every month. The Trinity House keep a reserve of provisions, tinned meat and biscuit, and if they fall short they can buy them off the Trinity House at the cost price.

717. How do the provisions of the men on board these vessels hold good for a month; must they take tinned provisions?—We never find any difficulty; how do other vessels manage that go long voyages?

718. Vessels that go long voyages generally find the maintenance of their crews?—I am open to correction, but I think there are lines of vessels at the present time——on coasting tramps for instance—where the men get 30s. or so a week and find themselves.

719. Could you give us any idea—you have eleven vessels to do your entire work—could you give us any approximation of the number of these vessels that are engaged in the tending of the lightvessels and the rock lighthouses?—Well, they are all more or less.

720. I mean about how much; of course it could be only an approximation, but could you give us a rough estimate as to how many of these vessels would be required for the tending only?—The letterpress of the book of maps gives you all particulars of each district and the vessels that are attached to that district.

721. You have kindly promised to give us a return as to the question of the light dues payable by the coasting trade and the over-sea trade; if you could in addition to that give the volume of the coasting trade and the over-sea trade as nearly as possible, I should be obliged?*—You mean the tonnage; yes.

Local lights: Rosslare.

722. Just one more question with regard to what has been asked by our Chairman. I think we had it from a previous witness that the Irish Lights Board submitted to the Trinity House a proposal with regard to some gas buoys, I think it was, for lighting the approaches to this Fishguard—Rosslare route passenger service?—Yes, that is so.

723. Did that proposal obtain the sanction of the Trinity House?—No, not the original proposition of the Irish Commissioners.

724. The matter is still under consideration?—As a matter of fact, last year this proposal was before the Advisory Committee, and they objected to it, and the Board of Trade threw it out.

725. My question with regard to local authorities controlling lights that would be fairly out in the fairway for passing traffic would apply in that particular case. I know the locality fairly well, and of course the entrance to what you may call the channel, the fairway leading into the new harbour, is some five or six miles off shore?—Yes.

South Shear

726. The local authority would have no power to erect lights there.—As a matter of fact we have an application before us at the present moment from the Irish Commissioners for a lighted buoy at the South Shear.

727. Irrespective of the cost, whether local sources or private companies should bear the cost of them, it would undoubtedly be desirable in the interests of the passenger service that the channel should be properly lighted?—I should say, as a matter of opinion, that goes without saying.

Board of Trade: Control over Trinity House satisfactory.

728. (*Chairman.*) I should just like to ask one question. Do the Trinity House feel themselves hampered and interfered with in their administrative work by the supervising powers of the Board of Trade?—No, I should say not, Sir; on the contrary, of late years we have worked most amicably, and we are always glad of any assistance the Board of Trade can render us, either by advice or pointing out to us why such and such an expenditure that we might have submitted, might not be desirable.

729. And you have not found that the control of the Board of Trade over your expenditure has in any way destroyed the sense of responsibility on the part of the Trinity House?—No.

* The Commission subsequently decided not to call for this return.

THIRD DAY.

Tuesday, 13th November 1906.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Mr. H. G. Cook, called in; and examined.

730. (*Chairman.*) You are the Secretary of the Commissioners of Irish Lights?—Yes, Sir.

731. And are here as their representative to-day?—And I am here as their representative.

Irish Lights Board: Constitution and powers of.

732. Would you begin by giving us a short account of the constitution and powers of the Commissioners from the date of their incorporation?—Yes; the constitution of the Commissioners of Irish Lights dates back to 1786, when they were incorporated by the Act 26 Geo. III., C. 19 (Irish), entitled "An Act for promoting the Trade of Dublin by rendering its Port and Harbour more Commodious."

733. Under what name were they incorporated?—The Act for Promoting the Trade of Dublin; that is the Act.

734. That is the title of the Act?—By which they must be called.

735. They must have been incorporated under a distinct title; what was the title?—The Corporation for Preserving and Improving the Port of Dublin.

736. Did their powers at that time include the lighting of the Irish coasts generally?—No, not at all; that did not come on till 1810.

737. Will you explain the circumstances under which the Commissioners of Irish Lights were established?—Between 1786 and 1810 there were several minor Acts as to the raising of light dues and repairing lights, some of which were local lights, but in 1810 all the unrepealed Acts were vested in the Corporation, which was then called the Ballast Board. That is under the Act of 1810.

738. I do not quite follow you. In 1810 these various powers in connection with the lighting of the coast were vested in the Corporation for Preserving and Improving the Port of Dublin?—Yes.

739. Had there been any common Lighthouse Authority for Ireland before that?—No, the lighthouses were under different bodies, principally the Customs, and there were some little local lighthouses under the Board of Works—Howth Harbour and Dunmore.

740. So that the connection of the Corporation for Preserving and Improving the Port of Dublin with the lighting of the Irish coast began in 1810?—Began in 1810.

741. And later on?—Then we come along to 1854; nothing was done till then. 17-18 Vict., Ch. 16, Clause 389, the Merchant Shipping Act, Part VI., enacted that "The superintendence and management of all lighthouses, buoys and beacons shall be vested in Ireland and the adjacent seas and islands in the 'Port of Dublin Corporation.'" That is another name for the same Corporation.

742. But it was the same Corporation?—It was the same Corporation exactly as that of 1786—constituted exactly the same, and the constitution of the present Board is precisely the same as it was then.

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743. Was the title altered to the Port of Dublin Corporation by the Act of 1854?—Yes, by the Merchant Shipping Act.

744. Were any new powers conferred upon the Corporation by that Act?—No, Sir.

745. It merely changed the title?—It merely changed the title.

746. Practically, then, a repetition of the Act of 1810?—Yes.

747. Then in 1867 there was a further Act?—The Act of 1867 was the Act which gave the Commissioners the present name, the Commissioners of Irish Lights.

748. The Corporation for Preserving and Improving the Port of Dublin was then, as it were, divided into two?—Divided into two.

749. Or, rather, its functions were divided into two?—Its functions were divided into two.

750. Would not that be a more correct way of putting it?—Yes, the Commissioners were given charge of all the lights round the coast of Ireland, with the exception of Poolbeg and other lights; and the Corporation for Preserving and Improving the Port of Dublin became the Dublin Port and Docks Board.

751. In spite of the fact that there was a new statutory authority for the Port of Dublin, the constitution of the Irish Lights Commissioners remained as it had been fixed in 1786, when they were only a Corporation for Preserving and Improving the Port of Dublin?—That is quite right, Sir. Under the Act of 1810, we took over the 13 existing lighthouses in Ireland at that time. We were then called the Ballast Board.

Composition of,

752. Now, will you state to us the composition of the Board?—The Board is composed of 22 members, namely, 17 members nominated by members for the time being of the Corporation for Promoting the Trade of Dublin by rendering its Port and Harbour more Commodious, subject to the approval of the Lord Lieutenant and Privy Council in Ireland; the Lord Mayor of the City for the time being; the High Sheriff of the City of Dublin for the time being; and three Aldermen of the City of Dublin annually nominated by the Municipal Corporation of Dublin.

753. So that there are five ex-officio members, and all the remaining 17 are co-opted by the whole Board?—Yes, self-elected or co-opted.

754. Would you state the names, age, date of appointment, and qualifications of the Commissioners?—Yes.

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Names, ages, date of appointment and qualifications of Commissioners.

Name.	Age in October 1906.	Date of Appointment.	Qualifications.
Sir William Watson, D.L.	64	1875	Managing Director, City of Dublin Steam Packet Company, Associate Institution of Civil Engineers, Associate Institution of Naval Architects.
Arthur G. Riall- - -	64	1882	Retired Commander, Royal Navy.
George B. Thompson- -	68	1883	Merchant. Bachelor of Arts and First Senior Moderator and Gold Medallist in Natural and Experimental Sciences, Trinity College, Dublin. Holds Master's Certificate of Competency, Board of Trade.
John Jameson - - -	67	1884	Distiller. Master of Arts and Bachelor of Engineering T.C.D.
Viscount Monck - -	57	1887	Late Captain Coldstream Guards. B.A. Christ's Church, Oxford.
Duke of Abercorn, K.G., C.B.	68	1892	Landed Proprietor. M.A. Oxford.
Sir Howard Grubb, J.P., F.R.S.	62	1893	Constructor of astronomial instruments for the British, Colonial, and Foreign Governments. Consulting Engineer and Optical Expert to Messrs. Vickers Sons and Maxim, Ltd. Fellow of the Royal Society, London. Fellow of Royal Astronomical Society, London. Late Vice-President of Astronomical Society, Liverpool. Member of British Astronomical Association. President of Photographic Convention of United Kingdom, 1894. Hon. Member of Astronomical Society of Mexico. Master of Engineering; hon. causa, University of Dublin. Hon. Member of the Institute of Civil Engineers in Ireland. Vice-President of the Royal Dublin Society. Member of the Council of the Optical Society, London. Cunningham Gold Medalist, Royal Irish Academy. Inventor and patentee of "Grubb's" patent gun sights, range finders, new forms of geodetical instruments and optical apparatus for submarine boats. Author of various papers on optical and scientific instruments in the transactions and proceedings of the different societies mentioned above. Member of the Board of Visitors of the Museum and Science and Art. Justice of the Peace for County of Dublin. Hon. Member Royal Irish Yacht Club.
Sir William J. Goulding, Bart.	50	1894	Manufacturer; and Chairman G.S. and W. Railway. Deputy Chairman Fishguard and Rosslare Railways and Harbours. M.A. Cambridge.
Edward P. Stewart - -	65	1894	Land Agent and J.P. Late Captain 78th Highlanders.
Alexander A. Walker -	49	1900	Secretary and Superintendent, Local Marine Board, Dublin. Examiner in Navigation and Seamanship to Board of Trade. In command of sailing ships and steamers for about eleven years. Registrar, Royal Naval Reserve, Dublin.
John Jolly, F.R.S. - -	48	1901	Professor of Geology, Trinity College, Dublin. Civil Engineer (B.A.I. Trinity College, Dublin). Fellow of Royal Society. Member of Optical Section of Board of National Physical Laboratory. Familiar as a yachtsman with navigation of Irish waters; Author of various papers on Physical and Optical subjects, upon Navigation, Nautical Instruments, Deep-Sea Exploration, etc.
Charles E. Martin, J.P., D.L.	67	1902	Shipowner, Merchant, Director of Bank of Ireland. Associate Member of the Institute of Civil Engineers, Ireland.
Rowland Hill Scovell -	43	1902	Bachelor of Arts, Medicine and Surgery, University of Dublin (not practising Medicine).
Henry L. King - - -	46	1903	Landowner and J.P.
Frank Fitzgerald - -	50	1904	Merchant and Shipowner. Director of British and Irish S.P. Company.
Sir Daniel Dixon, Bart., D.L.	62	1904	Merchant and Shipowner. Member Belfast Harbour Board. Lord Mayor, Belfast.
T. C. Burnside - - -	—	1905	Retired Commander, Merchant Service.

EX-OFFICIO COMMISSIONERS.

The Lord Mayor of Dublin for the time being.
The High Sheriff, City of Dublin, for the time being.
Three Aldermen of the City of Dublin, elected annually by the Corporation.

Separation from Dublin Port and Docks Board.

755. After the Act of 1867 there were two bodies, the Irish Lights Commissioners, and the Dublin Port and Docks Board?—Yes.

756. But the Irish Lights Commissioners had, in the first instance, a right to appoint a certain number of representatives to the Dublin Port and Docks Board?—Yes, seven members.

757. And that was the only connection between the two bodies which continued after the Act of 1867?—That is all, Sir.

758. And even that was done away with by the Dublin Port Act of 1898?—Yes.

759. The two bodies are now entirely separate?—The two bodies are entirely separate.

760. And have entirely distinct functions?—And have entirely distinct functions.

Procedure of Board.

761. Will you describe the procedure of the Board, please?—The Board meet every week during the year on Friday, unless that day should happen to fall on a holy day or other festival, when they meet on some other suitable date, in which case every member is notified of the change; a special summons is also issued to each member when any special business is to be laid before the Board. The hour of meeting is 1 p.m. under ordinary circumstances; when a meeting is specially summoned another hour may be decided upon, of which each member receives due notice. The Board meetings are in private, and three members form a quorum. All matters of an important nature are laid before the Board to be dealt with, and, if necessary, are referred to either the Finance, Inspecting, Office and House, Removal, or Stores' and Steamers Committee. The various heads of departments and masters of steamers (when available) are in attendance on each occasion the Board meets, in the event of it being considered necessary to consult them on any matter. All Committees as above are struck by the Board at a meeting held in January of each year, which is specially called for the purpose. All annual tenders for contract supplies or other tenders of an important nature are opened in the presence of the Board, and initialled by the chairman of the day. All cheques on the disbursement account, on being passed by the Finance Committee, are signed by three members of the Board and the Secretary, or his "locum tenens."

762. So that three members form a quorum of the Board?—Yes.

Attendance of members.

763. Can you give us some idea of the numbers that usually attend these meetings?—I can, Sir. I have made up a return for three years on the same lines as a return was made up for a previous Commission on Lighthouses. In 1903 we had 52 meetings of the Board, and the average attendance was 9.1. In 1904 we had 53 meetings of the Board, and the average attendance was 9.6. In 1905 we had 52 meetings of the Board, and the average attendance was 8.9, which averages 9.2 attendances of members for the three years.

764. You say that all matters of an important nature are laid before the Board to be dealt with, and if necessary are referred to the various Committees?—Yes, Sir.

765. Who is charged with preparing the agenda; the Secretary, I suppose?—I am, Sir, as Secretary.

766. The questions that come before the Board are not dealt with by Committees in the first instance?—Oh, never, Sir, except they be referred to the Committee, and then they come back to the Board.

767. So that a large part of the administrative work is done by the Secretary and his staff?—Always; well, it must be. We could not wait for Board meetings. We have to act in a case of emergency, but we report to the Board whatever we do.

Committees:

768. And the various Committees only deal with the special matters which are referred to them by the Board?—With the exception of the Finance Committee. As a matter of fact, they get all the accounts regularly, before they come to the Board to be passed.

769. With the exception of the Finance Committee there are no standing Committees at all?—No, Sir.

770. Would you give us further details as to the numbers constituting the various Committees, and the functions of those Committees?—The Inspecting Committee is composed of eight members.

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Finance Committee

771. Perhaps we had better deal with them in the order you have given them here. Take the Finance Committee first, which is the only standing Committee?—The Finance Committee is composed of nine members—Commander Riall, R.N., Mr. C. E. Martin, Mr. Fitzgerald, Mr. Jameson, Mr. Scovell, Sir W. Watson, Sir W. J. Goulding, Capt. E. P. Stewart, and Sir Howard Grubb.

772. Do they meet every week?—They meet every week regularly, Sir.

773. Before the Board meeting?—Before the Board meeting; they meet at 12 o'clock; the accounts are prepared in a certain form, which is devised by the Board of Trade, and submitted to the Finance Committee.

774. Can you tell us what the average attendance of the Finance Committee is?—Yes, Sir. The Finance Committee, 2.7. We have only three members at a time on the Finance Committee, although there are nine here, I should make that clear, Sir. During the months of January, April, July, and October Commander Riall, Mr. Martin, and Mr. Fitzgerald are deputed to attend. In the months of February, May, August, and November Mr. Jameson, Sir Howard Grubb, and Mr. Scovell. In the months of March, June, September, and December Sir W. Watson, Sir W. J. Goulding, and Capt. Stewart.

775. I see; although the Committee consists of nine members, the effective Committee at any given time only consists of three members?—That is quite right, Sir.

776. (*Admiral Henderson.*) Then they are divided into three sections?—Yes.

777. And work four months in the year?—Yes.

778. (*Chairman.*) What is the average attendance?—The average attendance of the Finance Committee in 1903 was 2.7, in 1904 2.8, in 1905 3. The average attendance for the three years is 2.9.

779. Practically, we may take it that the three members of the particular division of the Committee which is then taking duty almost invariably attend?—They are very regular in their attendance indeed.

780. Is there a quorum?—There is no quorum, but if I find I have not got a Committee—some member cannot attend—I immediately telephone to some gentleman near me, and he comes in and assists us, so that there is always a Committee.

781. I suppose in the event of the absence—enforced or otherwise—of any of the three gentlemen who for the time being are acting as the Finance Committee, it is always possible to obtain the services of another?—Yes.

782. One of the nine?—One of the nine; there is no difficulty whatever; it is only a matter of time.

783. (*Sir Frank Adam.*) There are generally three; sometimes two?—If I have a large quantity of work to put before them, I may have three or four in attendance.

784. (*Colonel Herbert.*) It may occur that one of the members of the panel may never attend?—Well, I do not think that has ever occurred, Sir.

785. His place would be taken by somebody else you telephone for?—I never knew the case occurring; do you mean continually or on an occasion?

786. I mean it might occur; although the name would be put on the panel of three members, one of those members might for some reason or another never attend, and still the average would be maintained by another person being called in?—I never knew a case of that kind to occur. The Finance Committee and the Inspecting Committee are the best Committees. The members are very regular in their attendance.

Inspecting Committee.

787. (*Chairman.*) Well, now, as to the Inspecting Committee?—The Inspecting Committee meet whenever required. There are no fixed periods. The average number of meetings in the year is 22. This Committee is composed of eight members, who are elected annually in the month of January, and are chosen for their special qualifications.

788. What are the duties of the Inspecting Committee?—Practically all subjects in connection with the lighting, buoyage, and steamship operations of the service that present any difficulties, and which the Board considers require special consideration; they are referred to this Committee.

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789. There is no regular inspection carried out by members of the Board of all the lighthouses round the Irish coast within a given period?—Every year they are inspected by members of this Committee.

790. Every lighthouse?—Every lighthouse, unless sometimes they have run by some of the big rock stations on the west coast of Ireland, where you could not get a landing. But they land at places most difficult of access.

791. But the Board would regard it as the duty of the Inspecting Committee during some portion of the year to inspect every seamark round the coast of Ireland?—Yes; they do so, I may say, always. There are two stations that sometimes they find a difficulty in visiting—namely, Black Rock, Mayo, and Eagle Island. They have sometimes had to run past them. We know very well that, although you were to stop a week or ten days, a landing could not be effected.

792. (*Sir Frank Adam.*) On account of the weather?—On account of the weather; the seas.

793. (*Chairman.*) How many members of the Inspecting Committee perform this duty at any one time?—Last year we had six, I think. On the coast inspection in 1903 Sir William Watson spent 23 days, Capt. Riall 23 days, Mr. Jameson 12 days, Lieut. M. Knight, since dead, 20 days, and Mr. Scovell, I think, was on the whole time—that is, about 22 or 23 days.

794. (*Colonel Herbert.*) But is the same system followed in regard to that as with the previous Committee, of there being a certain number told off to carry that inspection out?—No, Sir, they are all summoned specially; on each occasion the Inspecting Committee is summoned.

795. Then the case may occur here that I referred to in my previous question, that there may be members who never do a day's inspection?—Some of them may not have visited every station, but as a matter of fact all these gentlemen on this Committee have been round the coast. Captain Burnside, who was only elected this year, was round the coast with Mr. King, Captain Riall, Mr. Fitzgerald, Mr. Scovell and Sir William Watson, those are the six that went round this year.

796. (*Admiral Henderson.*) Might I ask, do you divide the coast up amongst these six members?—No, Sir.

797. They all go together?—They all go together in the "Alexandra" s.s.

798. (*Colonel Herbert.*) Is it all done in one cruise?—It is all done in one cruise; that is all the lights which are under our jurisdiction, and paid for out of the General Lighthouse Fund.

799. (*Chairman.*) It is one cruise, and carried out during the summer time?—In the month of June.

800. (*Sir Frank Adam.*) What is the duration of the cruise?—About 21 or 22 days.

801. (*Admiral Henderson.*) They inspect the lighthouses; they do not attempt to verify buoys, or anything of that sort?—Not to verify buoys.

802. They just inspect the lighthouses?—They inspect the lighthouses and lightships, buoys and beacons.

803. (*Sir Frank Adam.*) Do they take any other steps when they cannot land at certain points, and do they inspect them by some other means?—No, Sir, the Commissioners do not.

804. (*Colonel Herbert.*) Is there any other system of inspection?—The inspector and the assistant inspector.

805. (*Chairman.*) Are there any other duties devolving upon the Inspecting Committee besides those you have enumerated?—They inspect from time to time the seamarks under their jurisdiction, and under the jurisdiction of the various local authorities in Ireland, when possible.

806. Do they make it their business to carry out that inspection over the whole coast during a period of twelve months?—They do whenever possible; sometimes they inspect some lights which they cannot visit in other years. It is difficult to land at some of the West Coast lights, and if they landed they might find a difficulty in getting off again.

807. It is also the duty of the Board to report to Parliament, is it not?—Yes, Sir.

808. With respect to local lights?—The report of every local inspection is sent on to the Board of Trade; that is published every year.

809. But it is not possible to say that all the local lights are inspected every year?—Oh, they are not, Sir.

810. (*Colonel Herbert.*) It is a collective responsibility for the efficiency of inspection; the Board is collectively responsible for the efficiency of the inspection?—Certainly, Sir.

Office and House Committee.

811. (*Chairman.*) Then as to the Office and House Committee, what duties are assigned to them?—They consider all applications from the officers as regards salaries, also steamers' or stores staff's salaries generally.

812. But does not the Finance Committee consider the question of salaries?—No, Sir, never; it deals with matters of account, nothing else but the accounts.

813. (*Colonel Herbert.*) What is the number of the Committee?—The Office and House Committee?

814. Yes?—The Office and House Committee consists of four members: Sir William Watson, Mr. George B. Thompson, Mr. Martin, and Alderman Cotton.

Removal Committee.

815. (*Chairman.*) What of the Removal Committee?—The Removal Committee is simply for transferring light keepers and lightship men. They are all members of the Inspecting Committee, and they meet immediately after the Inspecting Committee.

816. (*Colonel Herbert.*) How many?—Three; Sir William Watson, Commander Riall, and Mr. G. B. Thompson.

817. (*Chairman.*) I presume that is not a committee which meets very often; the need for appointments of lighthouse keepers is not continually arising?—No, they have generally a couple of meetings after their visit round the coast, so as to transfer the keepers in the summer months when possible.

Stores and Steamers Committee.

818. And the Stores and Steamers Committee, what are its functions?—Any matter affecting the personnel of the District Stores, Kingstown, improvements or alterations of the Store premises. They meet whenever required, and it is very seldom they are called.

819. Are the offices of these various committees quite distinct?—For instance, the Office and House Committee and the Removal Committee, and the Stores and Steamers Committee, all seem to deal with the staff. Are their functions clearly demarcated?—Nothing would be dealt with at the Stores Committee, except things connected with the Stores staff, but any case of salaries would come before the Office Committee. Might I make a distinction between wages and salaries? The salaries are paid to the officers, and the wages to the men. Men get daily wages, you see, Sir.

820. But the Office and House Committee only deals with salaries, not with wages?—Salaries.

821. I think if we had a statement setting forth the numbers of the committees, and their personnel, with a brief enumeration of their functions, it would be useful?—I have got it; I will pass it up to you.

Duties of Committees: Inspecting Committee.

822. Will you read out the duties of the committees?—The Inspecting Committee meet whenever required. There are no fixed periods. The average number of meetings in the year is 22. This Committee is composed of eight members, who are elected annually in the month of January, and are chosen for their special qualifications. Practically all subjects in connection with the lighting, buoyage and steamship portions of the service that present any difficulties, and which the Board consider require special attention, are referred to this Committee. They also carry out an annual tour of inspection, when, weather permitting, they visit each lighthouse and lightship station under their jurisdiction. They also inspect from time to time the seamarks under the jurisdiction of the various local authorities in Ireland, when possible. The annual estimates are examined and checked by them before being forwarded to the Board of Trade.

Finance Committee.

The Finance Committee meet every Board day throughout the year, at noon. It consists of nine members; three of each are deputed to attend each meeting and serve monthly in rotation. They meeting and serve monthly in rotation. They—

1. Examine accounts submitted for payment (weekly average) and initial same.

2. Check the book in which the accounts are entered (called the docket book), and amounts extended under the several abstracts, and ascertain that the castings are all correct.

3. Sign cheques on disbursement account for amounts passed as correct, all such cheques being signed by three members of the Board.

4. Audit and initial all receipted vouchers, mark off same in docket book and note the number of passed accounts for which receipts have not yet come to hand.

5. Check disbursement account with bank book.

6. Check drawing account with bank book.

7. At the conclusion of each quarter, when the accounts are in order for transmission to the Board of Trade, they are submitted to this Committee for approval, and when examined and found correct the schedule is signed by two members.

8. Deal with matters of account laid before them for decision.

Office and House Committee.

The Office and House Committee deal with matters referred to them by the Board in connection with :—

1. Salaries of officials, steamers, or stores staffs.

2. Appointments, promotions, and transfers of same.

3. Office premises, repairs, alterations, etc.

They meet when required, and are specially summoned.

Removal Committee.

The Removal Committee deals with the appointment, promotion, transfer or discharge of the permanent hands in the lighthouse and lightship branches of the service. They meet when required, and, being members of the Inspecting Committee, they transact their business on the same day as the Inspecting Committee meet.

Board and Committee Meetings :

823. Do you think it would be possible to put in a statement giving the agenda for the different Board and Committee meetings for a period of six months?—Give you just a copy of an agenda? I could tell you the number of subjects that the Board dealt with at each meeting. Is that what you mean?

Procedure.

824. Well, I should like to have a written statement put in, giving the agenda for a considerable period?—Do you want the details of the agenda?

825. We want the details of the agenda?—I would report to my Commissioners; it would take some time to make that out. For instance, on January 13th there were 15 subjects; on the 28th there were 33 subjects. Sometimes we go up as far as 34 and 39. There are some cases where we had as many as 47 items before the Board on the agenda.

826. Can you give us a copy of the agenda of the Board and of the Committees for a period of six months?—Yes; will that be any six months, or would you like the last six months to date or the first six months of this year?

827. The first six months of this year. If there is any change in that, we will inform you of it through the Secretary?—Yes, Sir. The average subjects dealt with by the Board are 25.75 weekly.

828. Let us also have a copy of the minutes of the Board meetings and the Committee meetings?—A full copy?

829. There will be no difficulty in preparing something of the sort?—No, Sir, a copy of the agenda is a very different thing from a copy of the minutes.

830. (*Sir Frank Adam.*) How long do your meetings last?—About two hours; from one o'clock to three o'clock.

831. Then when you have forty subjects to dispose of?—Some of these may be formal; contentious subjects are referred to Committees. The Committees take a great deal longer time to deliberate than the Board, because the Committees go very fully into everything. We have just got a case about the Roselare light, which alone would occupy, perhaps, half an hour's deliberation.

Stores and Steamers Committee.

832. (*Chairman.*) Some information of that kind we shall ask for, and I understand you will be able to provide it?—Oh, certainly. The Stores Committee: 1. Matters affecting the personnel of the district stores, Kingstown; 2. Alterations or additions in the stores premises; 3. They meet when required, and are specially summoned.

833. (*Sir Frank Adam.*) Steamers are included in that; what was that about?—The new steamer was being built, the "Alexandra."

834. (*Admiral Henderson.*) How many does it consist of?—Three members, Sir; Sir William Watson, Commander Riall, and Mr. G. B. Thompson. When they were building the steamer they had a small committee to decide important items.

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835. (*Chairman.*) The duties of the Committee with respect to steamers only refer to the construction of any steamer that may be wanted?—That is all.

836. Not to the actual duties carried out by the steamer?—No, Sir.

837. (*Mr. Ennis.*) Nor for repairing?—No.

Head Office Establishment:

838. (*Chairman.*) Well, now, will you proceed to give us some particulars of the personnel of the various departments, and the duties and salaries attached thereto. Have you prepared a general statement?—No, I have not had time. The notice I got was very short. There was an epidemic of influenza, and I have had to work 16 or 18 hours a day to get up the information. I have not got it here; I have not had the time to prepare it.

839. Perhaps the convenient course would be that we should ask that a written statement be sent in later on?—I will tell you what I have got. I deal with the different abstracts in which they arise. Our accounts are kept in a certain way by direction of the Board of Trade. Abstract A are lighthouses, therefore I will begin with Abstract A.

Staff employed.

840. Tell us how many officers are employed?—That is Abstract F, Sir. The office staff consists of a Secretary an accountant, a cashier, the Engineer, and assistant engineer, the inspector, an assistant inspector, two clerks in the Secretary's office, three clerks in the accountant's office, a check clerk who is divided between the inspector and Engineer, a surveyor of shipping attached to the inspector's department, and in the Engineer's department we have one permanent draughtsman, one chief clerk of works, one engineer's clerk, a foreman mechanic, a foreman lampfitter, one assistant ditto, one carpenter, one foreman rigger, one blacksmith, one assistant blacksmith, and also, when necessary, four temporary draughtsmen or surveyors, and a retort setter. We have a housekeeper, two messengers, and a hall porter.

Salaries.

841. In the statement which you put in I presume that we sholl have particulars as regards the salaries of all the officials?—I can make that out for you, Sir, with pleasure.

842. Perhaps you might tell us the salaries of the principal officials now?—The salary of the Secretary is £450 a year, rising by £25 to £700; the accountant £400, by £20 to £500; the cashier £290, by £15 to £400; the Engineer, £700, and he is sanctioned up to £900, no special rates of increase. The inspector, £350, by £20 to £500; one clerk in the Secretary's office, £290, by £15 to £350; the assistant inspector, £250, by £15 to £350; the assistant engineer, £220, by £20 to £300; another clerk in the Secretary's office

843. We should like a statement of salaries?—I shall have one prepared; just in the form I have given it to you, I presume?

844. In the form in which you have given it to us, except that it should be filled up with respect to all the officials?—The whole group of departments as well, Sir?

New works: Initiation of proposals for.

845. Yes. Now, with whom would it rest to bring before the Board proposals for new works?—The Inspecting Committee, when they go round the coast, generally decide what new works are necessary, and they instruct the Engineer to draw plans and estimates.

846. Then the Inspecting Committee would make a report to the Board?—Yes, Sir; when they come back they make a report to the Board.

847. The Board would consider the report, and would then decide whether any further steps should be taken as regards any recommendation of the Committee?—That is quite correct, Sir.

848. Do the Inspecting Committee endeavour to put themselves into communication with the shipping community in any way?—Some of them are shipowners; yes.

849. In connection with any proposed new lights?—No, Sir.

850. Do they receive suggestions?—Oh, we get inundated with suggestions, sometimes for new lights from shipowners, all of which are laid before the Board.

851. Does the Board refer these to the Inspecting Committee?—Yes, Sir.

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852. Is it any considerable part of the work of the Inspecting Committee to consider these suggestions?—A very considerable part.

853. Are these suggestions carefully gone into at the time that they are received, or do they have to wait until the Inspecting Committee carry out their inspection?—Sometimes the recommendation is made by the Inspecting Committee on their own initiation, or they may have heard about these suggestions.

854. In some cases it is possible to deal with any suggestion at once, without waiting for an inspection of the locality before deciding?—Oh, yes, sometimes we carry out things without waiting for an inspection of the locality.

855. And sometimes they reject suggestions?—Really, some of these gentlemen have been on the Committee so long that they know the coast perfectly; they can navigate a vessel round the coast. Sir William Watson, Commander Riall, Mr. Thompson and Mr. Jameson have been round the coast very frequently, probably 24 or 25 times.

856. Any suggestion brought to you would be very carefully considered on its merits?—Most carefully, Sir.

Official Establishment: Board of Trade Inquiry into, in 1890.

857. I do not know whether there are any observations you would like to make upon the duties and the personnel of the office?—It is very fully set out in the report of Mr. Trevor and Mr. Stoneham, made a few years ago, in 1890; it is put very concisely and very nicely.

858. Who made the inquiry?—Mr. Trevor and Mr. Stoneham, of the Board of Trade; they held an inquiry into, and reported on, the establishment of the Commissioners of Irish Lights.

859. Was that printed in the report of Lord Courtney's Commission?—No, Sir, this is not in connection with that; it is the report of the Board of Trade of the 20th June, 1891.

860. (*Admiral Henderson.*) Is that up to date?—It could be made up to date very easily.

861. (*Chairman.*) Could you do that for us; send us a copy of that report, with annotations bringing it up to date?—I could, Sir; I presume I can get a copy of this from the Board of Trade, but if not, we can get it typed out.

862. Send us a copy here?—It will take some time, it is fourteen pages.

863. We had better have it brought up to date and circulated to the Commission.—That brings up to date the officers, the crews of our steamers and stores, office staff generally, attendance at committees; it is very voluminous, and if you wish it on the same lines exactly——

864. Yes, I think we had better have that?——

865. (*Colonel Herbert.*) Could you work upon that general plan and bring it up to date? Have you got it as a sort of record and kept it up to date?—No, I have brought it with me, because I thought it would be useful.

866. (*Sir Frank Adam.*) You have examined it?—Oh, yes, I know it all.

867. Are there many important changes which have occurred since the last fifteen years when that was drawn up?—Not very many.

868. It would not take you very long, perhaps, to indicate the changes which have taken place?—No, Sir, it would not.

Seamarks: Number under Irish Lights Board.

869. (*Chairman.*) Can you give us some particulars relating to the lighthouses, lightships, beacons, buoys, and perches and steamers; as to numbers, for instance?—We have 74 lighthouses, one fog-signal only, 11 lightships on their stations, and four spare lightships. We have 109 buoys altogether, some of which are lighted. Out of that number seven are lighted and four have whistles, and one bell-buoy only.

870. (*Mr. Ennis.*) Are they all included in the 109?—They are all included in the 109.

871. (*Admiral Henderson.*) Gas, I suppose?—Yes, all oil-gas, which we manufacture ourselves; we have two stations for manufacturing oil-gas; one is Howth Bailey and the other is Larne district.

872. (*Chairman.*) Perches and steamers?—We have 31 beacons—they are generally constructed of masonry—two of which are lighted, and 34 perches.

Steamvessels:

873. (*Sir Frank Adam.*) Steamers?—We have got three steamers.

874. (*Chairman.*) Are your steamers constantly employed?—They have to lie up occasionally in consequence of stress of weather, when they cannot do any work.

875. But apart from that?—Apart from that they are constantly employed. We have to charter other steamers very frequently, especially since these new lighted buoys were established.

876. (*Mr. Ennis.*) How many rock lighthouses are there in the 74——

877. (*Admiral Henderson.*) Have you any chart showing the position of these?—I have got a lighthouse map, Sir. I thought it might be useful, so I brought it with me. That shows the position of all the lights, buoys and beacons on the coast of Ireland under the Commissioners' jurisdiction.

878. (*Chairman.*) You might supply us with copies of that, please, for the Commission.—Certainly; you want a copy for each member of the Commission?

879. (*Admiral Henderson.*) You have plenty of copies?—I think I have about half a dozen left.

880. (*Chairman.*) Very well, let us have a couple of them.—I can leave you that one now if you like; if it would be of any use.

Work of s.s. "Alexandra" and "Tearaght."

881. Can you describe to us what the principal work of the steamers consists in?—In the spring of the year they devote their time to delivering oil and ordinary stores at the lighthouses and lightship stations. The "Alexandra" last year—it was the first time she did it—took all the oil round the coast, and did it very rapidly indeed. She had about a thousand casks on board.

882. How often have the oil stores to be repleted?—We like to have the stations all oiled by the end of April.

883. And that lasts for?—Up to the following September twelve months.

884. For eighteen months then?—Yes, practically eighteen months.

885. (*Mr. Ennis.*) That is, that you have six months' reserve store?—About six months, so as not to let any station run short of oil and lighting stores; the same way with furnace and cannel coal.

886. (*Chairman.*) That is the work during the spring?—That is the work during the spring. Then, while she is doing that, one of the other vessels is buoy-shifting, and frequently, when she is delivering that oil, when the weather is unsuitable to do work outside, she can shift buoys in the harbours and different places where we have them.

887. Is there much of that work?—Yes, we have got 109 buoys to be shifted every year; then they have to tow the lightships in and out, examine the lightship cables, which is a very onerous task indeed, each cable being 220 fathoms in length. Some of the cables are $1\frac{3}{4}$ inch, and there are very few hands to do the work.

888. How are the shifts on the lightships managed?—Transfers of men are arranged by the Removal Committee, Sir; changes of lightships are carried out by the steamers.

889. And carried out by your own steamers?—By our own steamers in almost every case.

890. Have you anything else to add respecting the steamers? I do not quite understand how they are employed during the rest of the year. You have told us about the spring time?—Yes, only oil. During the rest of the year they have to go round with building materials, brushes, mats, artificers' tools, and things like that, and shift lightships, buoys, etc.

891. Just supplying the various stations with stores of every kind?—When the "Alexandra" has finished her spring trip she has to get ready for the Commissioners going round.

892. That is for the inspection?—Yes, the time comes round for her to lie up in dry dock and be cleaned. She wants a good scrubbing after delivering the oil; that is, paraffin.

893. That is during the month of June, I think you said?—That is during the month of June.

894. What is her autumn employment?—Her autumn employment is shifting buoys, towing lightships back-

wards and forwards in different places, and delivering oil and provisions, cotton-powder charges, gunpowder charges, and fog-signal stores generally.

895. In fact, broadly speaking, you may say the principal duty of the steamers is to supply the various stations with stores?—With the exception of the time they are employed by the Inspecting Commitee that is what those two steamers, the "Tearaght" and "Alexandra" are employed at.

Work of s.s. "Ierne."

896. That work takes up the whole time of the steamers, except so far as it is necessary to lay them up for bad weather and repairs?—No, in the case of the "Ierne," a different vessel, she is employed for the purpose of attending on the lighthouses on the south-west corner of Ireland. She is a very small vessel.

897. Was she built for that purpose?—No, Sir, she was built for attending on the Fastnet Rock.

898. During the construction of the lighthouse?—During the construction of the lighthouse.

899. But after the lighthouse was finished she was then employed in general lighthouse work on the South-West coast?—On the South-West coast, attending on the Fastnet Rock, Roancarrig, Bull Rock, Skelligs, and Inishtearaght. Those are the five rock stations round there; they are very difficult of access. That work was previously carried out by a little vessel called the "Moya."

Expenditure of Irish Lights Board.

900. As regards the expenditure on maintenance of establishments and cost of new works, you are prepared, I presume, to put in a detailed statement?—I do not know how many years you want it for. We can give it you under the several headings—wages, allowances, rent, lighting stores, ordinary stores, fuel, repairs, carriage, boat hire, incidentals, and the total. Those are the headings under which we give it to the Board of Trade, so it is only a question of making an abstract for you. Do you want it for each station?

901. We should like to have the accounts as you present them to the Board of Trade?—Yes, a copy of what we send to the Board of Trade each quarter.

902. (*Admiral Henderson.*) It is in a very condensed form, what you send to the Board of Trade?—Oh, no, we give full details.

903. Every particular?—Every particular, Sir, supported by vouchers.

904. (*Chairman.*) Anyway, whatever information you give to the Board of Trade we should like to have.—For how many years?

905. We will let you know as to the number of years?—Thank you, Sir.

Additions and improvements during 25 years.

906. I see you are prepared to give evidence with regard to additions and improvements, including new establishments, during the past quarter of a century?—Yes.

907. What does that refer to specifically?—It is the improvements which the Commissioners of Irish Lights have made on the coast of Ireland for the past 25 years.

908. Well, will you make a statement, please?—We have put up six new lighthouses and 40 improved lights for lighthouses. We have two new lightships and 11 improved lights in lightships; two lighted beacons, one bell-buoy, eight lighted buoys, four whistling buoys, 16 ordinary buoys, 64 new dwellings, and allowances in lieu thereof for 15 men, 14 new fog-signals, and eight improved signals, with an addition of 62 men.

Stores: Method of ordering and distributing.

909. And have you any observations you wish to place before the Commission on the method of demanding, ordering, receiving, issuing, transmitting, and accounting for stores?—Well, all stores that we supply for the lighthouses, lightships, and steamers are indented for by the lighthouse-keeper, the lightship master, or the master of the steamer, and they are checked in the office; so far as the lighthouse and lightship branch of the service is concerned they are checked by the Inspector and his assistants.

910. (*Sir Frank Adam.*) As to whether they are necessary or not?—As to whether they are necessary or not. In that statement the light-keeper specifies how much he requires, what is the date of the last supply, the quantity that was supplied, and the quantity that he has remaining on charge, to enable us to decide whether he requires any of the goods, which may be oil, or gunpowder, or any store. In the case of the steamers, the items are checked by the Superintendent of Stores, and if they are not approved the demands are sent up to me; and if I approve of them I send them back to the Superintendent with instructions to order the goods.

911. By what means do you order them?—Orders are made out in triplicate, one part is retained in the office, one is sent to the Superintendent and one part is issued to the contractor.

912. They have previously tendered?—The contractors have previously tendered, and the tenders have been accepted and passed by the Board of Trade.

913. (*Chairman.*) Yes.—Stores for steamers, etc., are ordered from the different contractors by the Superintendent of Stores, stores for lighthouses and lightships are ordered by the Inspector or Engineer, and all orders are countersigned by me. I am dealing now with annual stores only.

914. Do any of these matters come before the Lighthouse Board itself?—Well, no, Sir.

915. Or are they finally settled in the Secretary's office?—They are finally settled in the Secretary's office. If I saw an extravagant demand, and I refused to pass it, it would be open to the person demanding the Stores to appeal to the Board, but that has never yet been done.

916. (*Sir Frank Adam.*) Do you report to the Board at each meeting what you have done; sanctioned during the previous week?—No, Sir.

917. When does it come before the Board?—When the accounts come before the Finance Committee.

918. At?—At the weekly meeting of the Board.

918a. (*Chairman.*) But the Finance Committee do not go into these questions at all?—Oh, they do, Sir, very carefully; they look into every account; they initial every account, and not only when they pass it, but they initial it when it has been paid, and mark off in a book that all the accounts they have passed have been paid.

919. Is the sanction of the Finance Committee required before any stores can be issued?—No, Sir, once the estimates are passed and framed.

920. The whole of the rest of the work is left to the Secretary?—To the Secretary and the different departments to carry it out. It may be the Stores, the Engineer's, or the Inspector's department, but everything goes before the Secretary finally.

Allocation of contracts for,

921. (*Admiral Henderson.*) You said just now you obtained your stores by contract?—Yes.

922. Annual contract?—Annual, some; some are triennial.

923. And who accepts the contracts or rejects them?—The Board. They are opened in the presence of the Board; annual tenders usually come in in a single day, with the exception of oils, coals for lighthouses and clothing, which are considered separately. Tenders are advertised for in the public Press.

Kingstown depôt for,

924. Have you a central depôt for stores?—Yes, Sir, at Kingstown.

925. Do all the stores come in there?—Well, practically all, Sir; we have to deliver them direct to the stations sometimes, but very rarely.

926. Do you survey the stores?—No, I do not.

927. No, but is it done by any of your officers?—Oh, certainly; by the Superintendent of Stores and his staff.

928. They examine the stores, and report on them as correct?—All stores that come into the depôt are unpacked and examined, to see if they are in accordance with the contract.

929. And are issued then?—And are issued then as opportunity offers.

930. Would there not be any economy if they were sent direct to the lighthouses?—We do away with that as far as possible. We find it likely to lead to corruption.

931. (*Colonel Herbert.*) I understand that those officers are the ones who are responsible for the custody of the stores?—Yes, responsible for the custody and due delivery at the different stations.

932. Then there is no one who checks above them?—No, they go to the light-keeper. The light-keeper has made a demand, and if he does not get what he wants——

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933. What I mean is this; the person in custody, or supposed to be in custody, reports on the presence of stores, but there is no check over him?—Goods pass through three or four hands at the Stores.

934. There is no one to check the correctness of that; there is no system of inspection or checking, is there?

Distribution of,

935. (*Chairman.*) Is there any stocktaking?—There is no necessity to take stock; the things go out to the stations; we have nothing left at the Stores when the storing of the stations is completed. For instance, we order so much oil or so much powder for Tuskar Rock Lighthouse; when that is taken out of the stores is goes to Tuskar, and Tuskar has to account for it in the store account books.

936. (*Sir Frank Adam.*) In this depôt you do not keep any permanent stores from which you draw as you may want them?—Well, a little oil, also chain cable, rope, etc., but we do not like keeping it—we are too cramped for space.

937. (*Admiral Henderson.*) But you have to distribute by land to a great extent, in the usual way of commercial distribution. With people that have large contracts, and who are respectable firms, could you not carry out the inspection on their premises? It is done to a great extent?—We have rarely done so, Sir, in recent years. Many years ago we did send stores overland, and it was decided never to do so again, except when absolutely necessary.

938. (*Sir Frank Adam.*) Because?—I think there were some frauds carried out.

939. Between the contractor and the lighthouse keeper?—No, between the contractor and one of the officials in the office. That was the origin of Mr. Trevor's and Mr. Stoneham's report in 1880; they held an inquiry then.

940. (*Chairman.*) What was the origin of that inquiry? Were there certain scandals which had occurred?—The carrier was charging for carriage of oil and stores round the coast that never were sent and the accounts got through; the accountant passed these charges. The custom of sending stores overland was then discontinued.

941. Do you feel confident that your system of checks is sufficient to prevent fraud?—I think it is as perfect as it can be. I think if a man is inclined to be dishonest you cannot possibly stop him till he is found out. He can hoodwink you for a certain time, but that he would be ultimately caught, there is no doubt. I think our check is very good—very perfect.

942 4. I understand the system is this; that everything contracted for is delivered at a central depôt?—At a central depôt.

945. And there examined, and from there sent out to its destination in your own steamers?—Yes, that is the general rule.

946. And that no demand is made to get delivery direct from contractors to the different stations where the stores are needed?—No, Sir.

Steamvessels: Work of,

947. (*Sir Frank Adam.*) Do the steamers ever go half full or one-third full?—I prefer giving you a written statement of the duties of the steamers, because it is very difficult to repeat it off by heart.

948. (*Chairman.*) It would be very desirable that we should have that.—Because they have a great deal of work to do in improvements to lighthouses. They carry round cement, lime, sand, bricks and mortar, and the appliances for improving lights.

949. (*Admiral Henderson.*) Things like bricks, sand and mortar ought nearly always to be able to be got locally within a mile or two.—It is a strange thing, we cannot do it; we have had to send sand round to the West Coast of Ireland from Dublin—strange as that may appear—lately.

950. (*Chairman.*) Perhaps the best way of giving the Commission the information they want would be to let us see the logs of the steamers.—That would not say how much cargo they were carrying. I would have to give you a special statement of the work the steamers are employed at—a detailed statement.

951. (*Sir Frank Adam.*) That would be better; and the cargo which they carried over a certain date.—Say six months.

952. Copies of the logs of all the steamers.—Would the original log do?

953. (*Admiral Henderson.*) Yes, the original log will do. That is what we are to get from the Trinity House.—It would be tedious making out a copy.

954. (*Sir Frank Adam.*) With particulars of the cargo which does not appear in the log?—Yes.

955. (*Colonel Herbert.*) There is one point I should like to ask: Are all these steamers fitted in the same way for lighthouse work? I mean, are they practically interchangeable?—Oh, yes, Sir, they can do any work—buoy work or lighthouse work.

956. (*Chairman.*) I understand the "Ierne" is specially constructed, or at all events specially suited, for the particular work she has to perform; it is confined to the rocky coast on the south-west?—Yes, Sir.

957. (*Colonel Herbert.*) And the "Alexandra" is specially fitted as a store ship?—Specially fitted as a store ship and a buoy ship. They have got these rollers over the bows.

958. And likewise to carry passengers?—To carry passengers.

959. (*Mr. Ennis.*) The "Alexandra" is the largest?—Slightly largest—there is not much difference between her and the "Tearaght."

960. (*Sir Frank Adam.*) The "Alexandra" is the inspection steamer?—Yes. But they carried out the inspection in the "Tearaght" in 1903.

Annual Estimates: Compilation of,

961. (*Chairman.*) The next point is the compilation of annual estimates?—Well, in the compilation of the annual estimates the first thing we have to deal with is the wages, and they are calculated out to the very penny. I commence at Abstract A again, and go right through them. The wages for lighthouses and the allowances are calculated out to a penny piece. Then the rents are put in, exactly what was in the previous year. Any extra rent that has to go in, we have to get the sanction of the Board of Trade to before it appears in the estimates. All the stores are priced according to contract. A man wants so many brushes, or so many chisels and hammers, as the case may be, and they are priced out for each station separately on what are called the station sheets. The same way for oil, coal and any other items—small repairs, etc. Each station is done separately. Then they are entered on a summary sheet, on which the 75 stations all appear, and that has to be balanced up, of course, as well. Abstract B is done in precisely a similar manner—that is, lightships. Both Abstract A and Abstract B are compiled in the Inspector's and Engineer's departments.

Stores: Delivery of Coal.

962. (*Admiral Henderson.*) Take the question of coal. Do you send coal for all the lighthouses round by steamer?—No, Sir; a contractor delivers the coal at the various stations.

963. A local contractor?—A Scotch firm has had the contract for many years.

964. Delivered by steamer?—Delivered by steamer and by sailing vessels.

965. At the various lighthouses?—At the various lighthouses, with three exceptions.

966. Does that apply to rock lighthouses as well?—Yes.

967. (*Sir Frank Adam.*) Then the contract price includes delivery?—Includes delivery in store. The contractor has to weigh the coal when it is delivered at the lighthouse.

968. (*Chairman.*) That is an exception to the general rule that all stores shall be delivered at a central depôt, and from there again re-delivered to their ultimate destination?—Except at two stations—the Maidens Rocks, shore dwellings, where we give the men an allowance in lieu of coal, because we have got no coal store; and Buncrana, Lough Swilly, where the keeper is allowed £3 a year for heating the watch-house on the pier.

Annual Estimates: Compilation of,

969. (*Sir Frank Adam.*) In compiling these annual estimates, I gather, from what you have said, that they are made up in prices and quantities that have been provided for the previous year in the first instance?—Oh, no, Sir. When the Committee go round to the station, they are handed an annual demand, and if there is anything of an exceptional description in these demands, the keepers are to draw the attention of the chairman of the Committee to it. A man says "I want so-and-so," and the Commissioners turn to the

book and say "Why do you require it?" Anything exceptional—furniture, or anything like that, or any big repair—has to be brought under the notice of the Commissioners, and they post the demand to Dublin. It is checked by the official staff at Dublin. The items are all checked and priced to come into the estimates for the coming year.

970. (*Chairman.*) For estimates of things which are habitually required you fall back upon the contract prices of the previous year?—Formerly upon the contract prices of the previous year. But because our contracts now terminate on the 31st March, according to the financial year. Previously they were to 31st December. Now we can estimate correctly on the current prices.

971. I do not quite follow that. Does that mean that the estimates for the year are based on current prices?—Yes; now they are. But heretofore they were not.

972. They were based on the contract of the previous year formerly?—Yes.

973. (*Sir Frank Adam.*) When was that change introduced?—This is the first year we have had an opportunity of doing it.

974. (*Chairman.*) You have altered your financial year, in short?—Yes, we have made our financial year and the tenders run concurrently.

975. Have you finished with the annual estimates?—Then we have other portions of the estimates dealing with the buoys and beacons, which are principally the Engineer's department. They are compiled in the same way; we put in so much money for new buoys or anything else we require of that description including new chain cables.

Submission of, to Board for approval.

976. Are these estimates submitted to the Finance Committee?—No, but to the Inspecting Committee.

977. To the Inspecting Committee?—To the Inspecting Committee. They are always submitted to the Board, and the Board refers them to the Inspecting Committee, and gives the Inspecting Committee power to act, to send them on to the Board of Trade, who require comparative statements to be made out under every heading to compare with the previous year in every item we deal with.

978. We shall have an opportunity of seeing the estimates exactly as you present them to the Board of Trade?—Certainly, Sir. Kindly give me a note of what things you require.

979. We will let you know by letter later on, and give you a written statement of what we require?—Without the particular forms before you it would be wasting time, more or less; but in every case, whether there is an increase or a decrease, the cause must be shown and explained.

980. Have you anything else to add?—When we ascertain the quantities from the demands we receive, we insert the approximate quantities required in the forms of tender, and we invite tenders in the public Press.

Contracts: Allocation of,

981. By public advertisement?—By public advertisement.

982. In every case?—In every case for annual stores, but for some things, like the repairs of a lightship, we send to the people who had contracted with us for years past, say 12 or 15 tenderers, and we save the expense of advertisement.

983. There are cases where you ask special firms, who are accustomed to the work, to tender?—Yes.

984. (*Sir Frank Adam.*) It is an absolutely open tender in the other cases, or have you a list?—We keep a list of all the people who have ever supplied us with paraffin oil, for instance, chain cables, etc.

985. And who are respectable?—Yes.

986. (*Chairman.*) Do you always accept the lowest of those who are on the respectable list?—Yes, and almost invariably we recommend them to the Board of Trade, and they are accepted. I would not say always; there was one I remember lately where we did not.

987. For what reason?—The price was absurd, the work could not be done for the money. I forget the exact case in which it arose, but I know it was not recommended.

988. Was that a case in which you had publicly advertised for tenders?—Yes, I think it was; I cannot quite say.

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989. Was the tendering firm one who had tendered previously, or was it a new firm?—No, it was a new firm.

990. On the method of obtaining funds to meet expenditure, have you any observations to make?—We obtain all funds by imprest on the Board of Trade; we get the imprest from the Paymaster-General for any amounts we want.

Expenditure of Irish Lights Board: Method of obtaining funds.

991. You do that week by week?—Week by week, as a rule; one week may elapse; this last week it was not necessary to have an imprest.

992. But I understand your regular practice is to apply to the Board of Trade week by week?—Week by week, as a rule we specify what balance we have got in the disbursement account in the bank, and we say what we have to pay. Supposing there is an instalment on a lightship due, we ask for £4,000 or £5,000, as the case may be.

Pensions.

993. Are there any superannuation charges?—There are, Sir; superannuation charges come to £8,211 12s. 11d. a year.

994. (*Admiral Henderson.*) Have you a list of them?—Yes, they are divided under several headings, official, light keepers, lightships, steam vessels, and district stores, and widows and children.

995. (*Chairman.*) Are those specified in the estimates sent in every year?—They are all specified in the estimates.

996. It is not necessary, then, for us to have a special statement put in?—No, Sir; there are 170 pensioners, I think.

997. Will you give us some particulars now with regard to the superannuation?—Certainly.

998. I understand the estimates will provide us with fuller detail?—I cannot give you fuller detail than in this account.

Head Office Staff.

999. Give us some general heads?—Of the official pensions there are five: Peter Benjamin Le Clerc, Alexander F. Boxer, F. A. Symes, William Douglass and Michael J. O'Grady. They come to £1,450, the official pensions.

1000. On what system is superannuation calculated for these officers?—One sixtieth for every year's service.

1001. It is the ordinary Civil Service scheme?—It is the ordinary Civil Service scheme.

1002. (*Sir Frank Adam.*) Do they contribute towards it during their official lifetime?—Well, it is regarded as deferred pay, more or less.

Light-keepers.

1003. There is no contribution direct?—No, Sir, there is no contribution direct. Then you have got light-keepers who come under the next heading. The light-keepers amount to £3,299 6s.

1004. (*Chairman.*) On what system is their superannuation calculated?—In the same way.

1005. On the Civil Service scale?—On the Civil Service scale.

1006. (*Admiral Henderson.*) And is everybody in the lighthouse service entitled to pension?—Well, except what may be called special assistants. There are only three; two of them get £21 a year; the keeper at Buncrana, the place I spoke of, and at Charlesfort, Kinsale; the watchman at Youghal is paid £26 per year.

1007. (*Sir Frank Adam.*) They do not come under the Civil Service scale?—No, but every other light-keeper does.

1008. (*Chairman.*) What is the cause of that exception?—Well, they never apply for it. These men as a rule die in the service. The family of the late keeper at Charlesfort has been in the service for 150 years. He died lately, and the son got the appointment.

Lightship-men.

1009. Are there any other headings for superannuation?—Yes, lightship men in the same way, they are under the Civil Service scheme.

1010. Who?—Lightship masters, mates, gunners, carpenters, lamplighters, seamen, fog-signalmen, siren men; and these amount to £2,011 4s. 2d.

1011. The crews of the steamers are not under a superannuation scheme, are they?—Yes, and some of the district stores.

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1012. (*Mr. Ennis.*) Is the superannuation compulsory at any period of age?—In the case of the lightkeepers and the lightship men we dispense with their services at 60 years of age, because the Commissioners consider it unwise to keep those old men at dangerous stations. They fear they would be killed or meet with some accident.

1013. (*Chairman.*) That is to say, the age of retiring is fixed at 60 instead of 65?—Yes, at 60 instead of 65.

Steamvessel crews.

1014. (*Admiral Henderson.*) Is that the same as at the Trinity House?—I could not say what is the practice at Trinity House. Then we have steam vessels and district stores. Those are comprised of the masters of steamers, cooks and stewards, firemen, first officers, book-keepers, and other ratings. These amount to £1,300 18s. 8d.

1015. The superannuation begins at 65?—Well, at 65 they are superannuated, but many of them have been given a pension on retirement from the service through inability to work. For instance, the man Carter was a packer at the stores, and he got an affection of the heart.

Widows and children.

1016. By reason of ill-health, I presume. It is still the regulation with regard to Civil Service superannuation which determines the amount?—Yes; and the widows and children. There is one, Mary Joyce. Her husband was drowned at Slyne Head in 1826; she is drawing her pension still.

1017. (*Mr. Ennis.*) Is she alive still?—She is, indeed. And there is Catherine Callaghan, the widow of a light keeper who died in 1849.

Cost of lighting and fog-signal stores.

1018. (*Chairman.*) You might give us a statement of the expenditure on lighting and fog-signal stores for the last few years?—Yes, this list is kept by me for checking the estimates.

1019. It is useful to you to be able to compare one year with another?—Oh, yes, I have got a statement from 1898.

1020. Have you a statement you can put in?—No, only a statement in pencil.

1021. You might make that out in ink, and let us have it. We only want a statement for three years.—For three years; very good, Sir.

1022. Let us have it since 1898.—Since 1898.

Head Office Establishment: Admission of clerks, etc.

1023. What are the regulations with regard to admission to the service of clerks, steamers' officers, lightkeepers, lightship men, and other officers?—In the case of the clerks, they must get a nomination from the Commissioners in the first instance, and then they have to pass an examination before the Civil Service Commissioners—the ordinary examination, Class II., the lower division.

1024. The nomination is required from the Commissioners in the first instance?—From the Commissioners; they nominate five candidates for each vacancy.

1025. Do the Board as a whole nominate, or individual Commissioners?—The Board have the right to nominate; they refer these things to the Office Committee. The Office Committee deal with this, get the candidates before them, and see whether they be eligible or not in their opinion.

1026. How many, as a rule, are nominated in proportion to the number of vacancies?—We nominate five for each vacancy.

1027. You nominate five for each vacancy; that is the rule?—That is the rule, Sir.

Steamvessel Service: Admission of officers.

1028. (*Admiral Henderson.*) That is all clerks?—Clerks, Sir.

1029. And officers or other people?—In the case of steamer officers, they always come in as junior officers—that is, perhaps second mate; they go on to be first mate, and then Commanding Officer of a ship.

1030. (*Colonel Herbert.*) How do they get their first appointment?—Men who have come in in a temporary capacity in room of officers absent from duty, if they commend themselves are given the first vacancy that arises.

1031. (*Sir Frank Adam.*) Do they come in with a certificate in the first instance?—Always.

1032. (*Colonel Herbert.*) Who nominates or selects them?—The captain of a ship will report that a certain gentleman has given him great satisfaction in a temporary capacity, and the Board appoints him for six months on probation.

1033. (*Chairman.*) The appointment in a temporary capacity rests with the captain?—Yes.

1034. (*Mr. Ennis.*) In the case of the clerks it is a Civil Service examination?—Yes.

1035. With regard to the higher posts, is it similar to the Trinity House arrangement; all the higher posts are filled from the most promising of the junior grades?—That is so; yes.

1036. That ensures that every official of the Commissioners has originally qualified by passing an examination, and rises in the service then?—Yes.

Lightkeepers and Lightship-men: Admission of,

1037. (*Chairman.*) As to lightkeepers and lightship men?—They make an application to the Commissioners on a special form for the purpose, on which they have to give their name, their age, and the nature of their occupation, with their own local doctor's certificate as to the state of their health, their height, and chest measurement, inflated and deflated. Each man must have served his time either to a trade or have been brought up to sea; he must have one of those qualifications; he may be a plumber or a blacksmith or a carpenter, or a seaman if he has an A.B. discharge. All these requirements having been complied with, the candidate is called up for examination, a medical examination by our own doctor and a literary examination in the office of the inspector. Many of the men that are passed by the local doctors are rejected by our head doctor in Dublin. We have to be very careful about the physique of these men, because they are in very important positions at outlying stations.

1038. With whom does the appointment ultimately rest?—The inspector reports to the Board.

1039. The Board appoints?—They are appointed by the Board.

1040. That applies also to lightship men as well as to lightkeepers?—Yes, except that there is no literary examination for lightship men; their only qualifications are that they shall be of good character and have an A.B. discharge, and be of good physique, and under 32 years of age.

Duties of,

1041. Why is that distinction made between lightkeepers and lightship men; is it supposed that a certain standard of literary education is more desirable for light-keepers than for lightship men?—Yes, Sir; because they have to keep returns at the lighthouses. A very great mass of returns comes in monthly, quarterly, and yearly.

1042. The masters of the ships keep those?—The masters of the ships keep those, but the light-keepers keep most of their returns. We make it a rule that the assistant lightkeepers keep those returns; they make them out, and they are supervised by the principal keeper.

1043. (*Sir Frank Adam.*) The lightship men only look after the lights?—They do that, and the cables, and attend to other duties aboard ship.

1044. (*Chairman.*) They have no reports to make?—No. There are three lamp-lighters on board each lightship, whose special duty it is to keep the lamps trimmed.

Lightship-men: Numbers in each lightship.

1045. (*Admiral Henderson.*) What is the crew of a lightship?—Eleven on all the stations except three, on two of which there are fog-sirens, Codling and Coningbeg, and the third, Daunts, is a very hard station; in these vessels an extra man is employed.

1046. Eleven is a big crew.—There is always a master or mate on board, and a master or mate on shore, seven hands on board, and four on shore. The big crew is necessary to carry out these men's reliefs.

Employment while on shore.

1047. Do they do anything when they are on shore?—When they are in Kingstown they are employed at the Stores when necessary, when they are remunerated at the rate of 2s. per day for their work, masters or mates get 3s. 6d. per day.

1048. In addition to their pay?—In addition to their pay and victualling allowance.

Relief of,

1049. How long do they serve on a lightship?—Either 60 days on board and 30 days on shore, or 40 days on board and 20 days on shore; it is twice as long on board as on shore.

1050. (*Chairman.*) Does the question whether it should be 60 days or 40 days depend upon the season?—With the masters and the men; some men like to have it 40 and 20, and some prefer 60 and 30 days.

1051. It is an arrangement made to some extent to suit the convenience of the men?—To suit the convenience of the men.

1052. (*Mr. Ennis.*) But at any rate, you get two-thirds of their time?—We get two-thirds of their time.

1053. (*Admiral Henderson.*) Practically, at any time, there are six men on board each lightship?—Yes, and a master or mate.

1054. Is the arrangement for relief the same for the rock lighthouses?—Some of the rock lighthouses have the same periods of relief, but they come in fortnights instead of ten days. The keepers at places like Fastnet Rock, Bull Rock, and Skelligs are six weeks on the rock and a fortnight on shore.

Light Keepers and Light-ship Men: Medical attendance for,

1055. (*Chairman.*) Have you anything to say as regards the arrangements for medical attendance?—Except that the doctors are getting very particular now about getting their fees. There was lately a meeting of the Irish Medical Association to increase the prices very considerably. I was just speaking to the Board of Trade about it yesterday. I think the system of payment to the doctor of a certain amount per annum would be far the better way to do it for the service.

1056. What is the existing arrangement?—It is 2s. 6d. per visit for some places, where the doctor will accept the 2s. 6d. a visit, of which the lightkeeper has to return 10d., if getting medical attendance; either on his own account, or for his family, we stop 10d. for every visit. When injured in discharge of duty medical attendance is free.

1057. (*Admiral Henderson.*) They pay the doctor 2s. 6d., and they recover from the light-keeper 10d.?—Some doctors now charge one, two, and three guineas a visit, and we can only get 10d. in return from the keeper in the same way.

1058. I suppose, when three guineas a visit is charged, that is generally to stations difficult of access?—There are two stations—Rathlin O'Birne, and the Aran Islands.

1059. The Aran Islands are rather distant?—A little steamer goes out there, and the doctor is resident on the middle island.

1060. (*Admiral Henderson.*) When men get ill at rock lighthouses or lightships, you relieve them at once?—If we can—if we can get near them.

1061. (*Sir Frank Adam.*) What sort of a practice has the man got who lives in the middle island and can charge two guineas?—A wretched practice—a very poor practice.

1062. And the reason he charged two guineas is that he thinks the Board of Trade has to pay it?—That is the reason, I presume. He knows very well we have to give the men medical attendance.

1063. (*Admiral Henderson.*) Are your rules as to medical attendance the same as the Trinity House?—I do not know what the Trinity House rules are, Sir.

1064. But I understand it is practically part of the service that they should have medical attendance, minus a small fee?—Yes; that is part of the service. The Trinity House lightship men get free medical attendance and ours do not. I was trying to ascertain the reason yesterday, and I was unable to find out. I expect an application will be made to the Board of Trade on that subject.

1065. (*Chairman.*) In the case of the Trinity House men, no payment is required from the men themselves?—Not from the lightships.

1066. (*Sir Frank Adam.*) What do your men pay?—The lightship men pay the 10d. a visit.

1067. But it is limited to 10d. per visit?—It is limited to 10d. a visit—yes.

1068. (*Mr. Ennis.*) Does that apply to their families as well as to themselves?—No, Sir; we do not give the men in the lightships anything for their families, but the light-keepers we do.

1069. But the lightship men, no?—No; because the families of the lightship men live on shore. That would mean a great increase in the cost of medical attendance.

1070. (*Admiral Henderson.*) The larger lighthouses?—The larger lighthouses we give the families there, the same facilities, but we pay for no maternity cases or vaccination fees.

Steamvessel Service.

1071. (*Chairman.*) Then what have you to say with respect to the system of steam vessels and district stores?—It is a very expensive item on the cost of Ireland. I think it comes to about £18,000 for the lighthouses alone.

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Cost of,

1072-3. That is for the supply of victuals to the lighthouses?—For carrying out reliefs, the mails, letters, food, and things like that. At some places they have charges up to £6 10s. a trip—the Black Rock Mayo—and we had to supply a lifeboat and advance the money for the lifeboat. The man lost all his boats in one storm. I do not know how he escaped with his life.

1074. (*Admiral Henderson.*) Can you give us any particulars?—Carriage of supplies to lightships by water, £1,400.

1075. (*Chairman.*) Does that include the cost of supplies, or only the carriage of the supplies?—The carriage of supplies to lightships by water, £1,400; for lighthouses, £1,800.

1076. (*Mr. Ennis.*) These are the rock lighthouses?—Rock and island. In addition to that we have the cost of the "Ierne," which is chiefly employed in carrying out the attendance on the south-west coast stations.

Work of ss. "Ierne."

1077. (*Sir Frank Adam.*) Carrying food?—Carrying food and carrying relief. She sometimes searches for wreckage, when it is reported. Some of the trans-Atlantic liners inform us that a wreck has been seen off the south-west coast, and we send the "Irene" in search of it.

1078. (*Chairman.*) A good deal of the service of the "Ierne" ought to be under the same heading?—The cost of maintenance of the "Ierne" for the year ending March 31st, 1906, was £3,158 12s.

1079. And she attends how many stations?—Five. It is difficult work. She also runs up and down to Cork, Bantry, and other ports, and brings down a lot of stores for these five stations.

1080. (*Sir Frank Adam.*) In your accounts you have never attempted to divide what part of her expenditure applies to lightships and what applies to rock lighthouses, and what applies to stores?—No, Sir; we have never done that; she does not attend any lightships.

1081. (*Admiral Henderson.*) She tends those five lighthouses entirely. Would the actual tending be by her boats?—Yes; the tending would not be in hired boats there.

Light vessels and Rock Lighthouses: Provisioning of,

1082. It is no part of the arrangement that the men should be supplied with food?—We only supply reserve provisions.

1083. That is in case of accident?—That is in case of accident. If they use any of the reserve food they must replace it by the next boat.

1084. (*Mr. Ennis.*) I think that is the same as the Trinity House; they have reserve provisions, too. But why do you fix the period of ten days for the attendance?—On the lightships?

1085. Yes. Do you know the periods for attendance with regard to the Trinity House men?—No, Sir.

1086. I mean, why do you consider it is necessary to make an attendance every ten days?—It is for the purpose of giving the men fresh food—fresh vegetables, milk, etc.

1087. (*Admiral Henderson.*) On many of these lighthouses on shore they are so far from a village or town that you are obliged to undertake the cost of supplying the people?—Yes. At some of the land stations we have to give them market carts. That is the next item on the list. They are very expensive in some cases, and very cheap in others.

1088. (*Chairman.*) Do I understand you to say that they pay for their own food, but the Lighthouse Authority pays for the carriage of the food?—Quite right, Sir. We get food for them; we ask them what they would like. We take tenders for those things, and we deduct the cost from the men's salaries afterwards.

1089. (*Sir Frank Adam.*) The cost of the food?—The cost of the food.

1090. (*Chairman.*) You supply the food and the cartage, and you make a deduction of the cost of the food from the lighthouse-keeper's wages?—They get allowances to cover them at rock stations of 1s. 9d. per day. Every day they are on a rock station they get 1s. 9d.

1091. Irrespective of the desirability or otherwise of attending them less frequently than at present, what economy could be effected, do you think, if the

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attendances were once a month instead of once every 20 days? That would be one-third off the attendances? —It would take twelve trips off the station, one-third less. It would save about £500 a year to lightships alone, tending them twice instead of three times a month.

Expenditure of Irish Light Board: Source of funds.

1092. (*Colonel Herbert.*) There are one or two small matters I want to clear up. From what source is drawn the funds of the administration?—From the General Lighthouse Fund.

1093. And you do that by imprest on the Board of Trade?—Yes.

1094. With regard to accounts, do you know under what accounts the expenditure is borne—what branch of the Public Accounts?—I do not, any more than it is the General Lighthouse Fund.

Inspector's Duties.

1095. You do not know in what form it would come under the cognisance of Parliament?—As the General Lighthouse Fund, I presume, Sir; it is a regular Fund. It used to be the Mercantile Marine Fund, but that was changed some time ago, and now it is the General Lighthouse Fund. I think it was in 1898 that the change took place.

1096. You have nothing to do with the collection of dues, I understand?—No, Sir; not since the year 1880.

1097. But do you know anything about the amount of dues collected?—Nothing whatever.

1098. You could not state what proportion the expenditure bears to the dues collected in Ireland?—I could not, but it appears in the General Lighthouse Fund Accounts.

1099. Now with regard to the duty of inspection, you mentioned several times an inspector; I was not quite clear as to who that inspector was, or what his duties were?—He is Captain Reginald Deane.

1100. Is he the only inspector in the Service?—We have an assistant inspector, Herbert H. Manders, who was first officer of the s.s. "Alexandra."

1101. There is an inspector's branch of the Service? —The inspector's department.

1102. Yes, the inspector, assistant inspector, and his two clerks?—Two clerks.

1103. What are his duties with regard to inspection? —To keep and maintain stores at the 74 lighthouses and two fog-signal stations, the 11 lightships and the four spare ships.

1104. There was only a question of providing them with materials?—To see that they are all correct, and kept in a proper state of efficiency in every respect.

1105. I mean only as regards provisions?—Provisions and stores of all descriptions.

1106. Efficiency of every kind; the personnel as well? —The personnel as well; to see discipline is properly maintained, that the lighthouse keepers are properly clothed when they are attired in their uniform, and that everything connected with a lighthouse is properly carried out.

1107. (*Admiral Henderson.*) That buoys are in their proper places?—That buoys are in their proper places.

1108. (*Colonel Herbert.*) That is the duty of the inspector?—Yes.

1108a. Quite apart from the Inspecting Committee? —Absolutely, Sir.

1109. How does he carry out that inspection—every year?—He and the Engineer accompany the Committee round the coast on their tour of inspection every year, in June.

1110. That is the only opportunity he has for regular inspection of a number of stations?—Oh, no, Sir. I anticipated that question might be asked, so I got a return showing the approximate number of times the inspector has been absent from the Office on service during the past few years. In one year he was 126 days—that was in 1903.

1111. Carrying out inspections?—Carrying out inspections, or inspecting lightships under repair; anything of that kind.

1112. Then, in fact, the 22 days' inspection by the Inspecting Committee is a very small portion of the work of inspection that is done?—Oh, very small, as the stations are usually in good order in anticipation of the visit of the Committee.

1113. But the cost of sending the Inspecting Committee round the coast on a tour of inspection would be considerably more than keeping an inspector, or staff of inspectors even, to do the work of inspection? I should not say so.

1114. You put a ship into commission specially for this trip, and you have six or seven inspectors on board?—Inspectors and a Scientific Adviser; as a rule, six of the Inspecting Committee and the Scientific Adviser, Sir Robert Ball. He invariably accompanies the Board round the coast.

1115. Does he come up from Cambridge for this purpose?—Yes, sir, to give his advice in case it is necessary.

1116. (*Admiral Henderson.*) Is the coast line divided into districts?—We have only got one, the store at Kingstown.

Replacement of Buoys.

1117. Supposing a buoy gets out of place somewhere, we will say up at Belfast?—If we have a steamer available we load her with cargo for stations in that direction, and send her off to replace the buoy. Masters of all steamers are acquainted with the proper marks for placing buoys.

1118. Does the inspector go up and do it?—No, not always.

1119. Sometimes the masters of steamers do it; they are competent to do it?—Yes.

1120. Does not some time elapse?—Sometimes three or four days, sometimes three or four weeks.

1121. You do not attempt to have it done locally?— We do if we have a spare buoy locally, but if not we cannot do so.

1122. Where are your spare buoys kept?—The majority are, of course, at Kingstown, but all round the coast.

Engineer's Duties.

1123. (*Colonel Herbert.*) Then you have an Engineer's Department?—Yes.

1124. Is the Engineer's Department responsible for constructions like a building, and so forth?—Yes, all things connected with the buildings and the erection of new lighthouses; the Engineer is a great deal away from home.

1125. How does the Engineer become acquainted with the condition of buildings—say a lighthouse on the north-west or west coast of Ireland?—Well, he visits them all once a year.

1126. Does he accompany this tour?—He accompanies the Committee as well, and when a light-keeper points out any defects in a building, the Engineer inquires into the matter on the spot, and decides what shall be done; take down a wall, erect a new roof, or anything like that.

Inspecting Committee's duties.

1127. On these tours of inspection you have a technical inspector, that is to say, the inspector, and you have another technical officer, the Engineer, to do the work. What do the other gentlemen do?—And the Scientific Adviser.

1128. What do the other nine gentlemen do?—They inspect the stations generally, as their name implies—Inspecting Committee—hear any complaints the light-keepers have to make. The light-keepers have often complaints—say they have been badly treated, and different things like that; the Committee inquire into all such complaints.

1129. It strikes me that my idea of inspection is personal, not all divided over so many people; however, that is the point I wanted to bring out. There is another point with regard to the Inspecting Committee. You stated that they are responsible for estimates?—I stated the estimates are submitted to them, Sir, when the estimates are prepared.

1130. But they are not responsible for them?—Oh, no, Sir. The estimates are submitted to them, and they go into them very carefully, and examine them, and if there is any increase or decrease they inquire the cause.

1131. But they are responsible for all recommendations for works and so forth which involve expenditure?—I should say that is correct, Sir.

1132. Are we to understand that the Inspecting Committee is responsible for general recommendations which involve expenditure, but they are not responsible for the accuracy of the estimates connected with the

expenditure?—Oh, they are, except that they refer all the different points to the Engineer, and discuss them with him. He submits his estimates and tenders are afterwards obtained if necessary.

Barr Point: Cost of fog-bell at,

1133. I might refer to one of these cases. The case here has been drawn to our notice of recommendations which have been made with regard to certain works of construction. In the one case the proposal varied from £80 to £730. The recommendation was put down as being £80, and it eventually ran out to £730. That shows that there must be some want of connection between the recommending authority and the estimating authority?—Well, you see, Sir, they might have commenced a certain portion of work, and the moment they commenced to open up the place they might have found a very radical repair was necessary. Perhaps they might, in the case of the roof of a house, have to take off a few slates which are loose, and then find all the rafters gone.

1134. This case I had before me is an entirely new work?—If it were a case of a landing I could understand that very easily, because they are washed away so frequently when they are very nearly completed.

1135. This was a proposal to place a fog bell on Barr Point, of which the cost, as originally estimated was £80?—We had intended to instal a clockwork bell, and it was decided afterwards to ring the bell by electricity from Larne.

1136. In next year's estimates this proposal appeared under the heading of new works sanctioned but not yet commenced. The cost was given as £730, and the Commissioners explained that the additional £650 was for land and machinery; do you remember that?—Yes, I say we had intended to have a bell worked by a clock. That would have necessitated another keeper. Then we decided to have it rung by electricity from Larne lighthouse. Now the keeper at Larne rings that bell by electricity. The keeper sees the fog, turns on the switch, and the bell rings.

1137. (*Chairman.*) The policy of the Commissioners was altered subsequently to the first estimate being presented?—I am not quite fully alive to those facts, because I was not Secretary at the time. But I know there is something like what I say. Whatever was done, was done with the concurrence of the Board of Trade.

Estimates and Accounts: System of submitting, to Board of Trade.

1138. (*Colonel Herbert.*) The system of submitting estimates and accounts, are they drawn out under heads which are furnished to you or required by the Board of Trade, or have you merely worked out your own system?—No, Sir, it is worked out on the system authorised by the Board of Trade.

1139. It has got to be done; that system has been laid down for you?—Yes, it has been laid down for us; we have no choice in the matter but to carry out our instructions.

1140. As to the system of estimating and accounting?—Yes, Sir, Trinity House have precisely the same form that we have, with the exception of different names for lighthouses and things of that kind.

Irish Lights Board: Constitution of,

1141. (*Mr. Ennis.*) I do not quite understand that original constitution of the Commissioners from this report here. You refer to Act 26, Geo. III., in 1786, Chapter 19 (Irish), entitled "An Act for promoting the Trade of Dublin by rendering its Port and Harbour more Commodious." The body created under that Act was the Corporation for Preserving and Improving the Port of Dublin?—Yes, Sir.

1142. You then later on tell us that the present Board is composed of 22 members, and is constituted in accordance with the Act of George III, 1786, 17 members being nominated by members for the time being of the Corporation created under the Act for promoting the Trade of Dublin by rendering its Port and Harbour more Commodious; but was not this Corporation created by this Act of 1786?—Yes, Sir.

1143. How were these original members appointed?—They were named in the Act originally.

1144. And then the existing Board nominate or co-opt to fill up vacancies?—Yes.

1145. Is there any age limit?—No age limit whatever, Sir; they can only disappear by death or resignation. Those are the first members of the Corporation; their names appear in the Act.

Co-option of members.

1146. Then with regard to the co-options, are the co-options limited to any particular class?—No, they are proposed by one member, and another member seconds them.

1147. And they are open to anyone?—They are open to anyone.

1148. There is no such restriction upon the nomination as in the case of the Trinity House, where anyone to be nominated one of the Younger Brethren must possess nautical qualifications. There is no arrangement of that kind?—None whatever, Sir.

1149. And there is no age limit for a member. I presume the Board are an absolutely honorary body—unpaid?—Unpaid.

Commissioners' Allowances.

1150. They receive no emolument?—They do receive an allowance if they are travelling on the Commissioners' business. If they are coming across here, for instance, they get one guinea a day personal allowance, first-class railway fares, and car fares.

1151. There is no emolument payable with respect to the annual inspection?—The Board of Trade authorises us to expend a sum not exceeding £400 a year for refreshments for the Commissioners at the Board and Committee meetings, and their expenses on their tour of inspection.

1152. But there is no such payment as £1 a day during the visit?—No, any Commissioner who travels for a day to get on board the steamer will get £1 1s. a day, personal expenses, and his car fares, but when he gets on board the ship his allowance ceases.

1153. (*Colonel Herbert.*) Does he get it when he goes up for Board meetings?—He gets his luncheon provided.

1154. (*Mr. Ennis.*) Does he get his train fare for coming up?—No.

1155. Anyone who of necessity has to travel a distance, his travelling expenses would be paid?—They would if he demanded them.

and Attendance.

1156. It seems from what you have told us that you have certainly a limited number of gentlemen, at least, who are on this Board, who are very active indeed, and deserve great credit for the trouble they take; are all the members generally active?—No, Sir.

1157. I think you have already promised to give us a list of the attendances of all members of the Board?—Yes, Sir.

1158. Is there any penalty on any committee in the event of a member failing to attend any number of times in the year, or ceasing to attend at all?—Yes; if he is three months absent from the Board without leave he loses his seat.

1159. After three months?—He is always licensed before that.

1160. (*Chairman.*) Is that provided for under the Act?—Yes, the old 1786 Act.

1161. (*Mr. Ennis.*) I take it that there is a certain number of active members on the Board; but the members who are at present on it are not all equally active?—They are not, Sir.

Control of Irish Lights prior to 1810

1162. Can you give us any information; I mean, can you give us any detailed information, any documentary evidence, as to who controlled the lights on the coast of Ireland, the lighthouses and the lightships, if any such existed, prior to 1810?—They were under the Board of Customs, Sir.

1163. Can you give us any information with regard to that Board; is there any information in your possession you could lay in regard to that?—My information I got from the Lighthouse Inquiry of 1834. It is a big book; I did not bring it across. There is just the remark there that there are 13 lighthouses taken over by the Corporation for Preserving and Improving the Port of Dublin. I found out what those 13 lighthouses were by hunting up old records in Dublin. The names of the stations are:—Hook Tower; Duncannon Fort; Charlesfort; Old Head, Kinsale; Loop Head; Clare Island; Aranmore; Copeland Island; Ardglass; Southrock; Cranfield Point; Balbriggan; Howth Bailey. Those are the 13 stations.

1164. If we could get summarised information—I do not suggest in any very great detail—as to the body or bodies that controlled these prior to 1810, it would be interesting?—The Board of Customs, Sir, and these local authorities.

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1165. And what the Board of Customs consisted of?—Yes, Sir.

1166. Dunmore at present is a Royal harbour; it was not at that time?—It was built by the Government, and it is so stated on the records.

Irish Lights Board: Quorum for Meetings.

1167. With regard to the Board meetings, I notice one rather peculiar thing here in your evidence. You have a Board of 22 members?—Yes.

1168. Three form a quorum?—Yes.

1169. Why such a small number as three? The usual proportion of any board that forms a quorum is one-third?—Well, I do not know about that; it was done long before I came into the Service, and it has been carried out ever since.

1170. (*Chairman.*) Is that provided also by the Act of 1786?—No, Sir, there is nothing about a quorum there, so far as I am aware.

1171. (*Mr. Ennis.*) It does seem a very small number of members to form a quorum for such a large Board?—Well, you see, in the month of August, when these gentlemen go away on their leave and vacation—they require some little vacation—the Board available is rather small.

1172. Still, a very small quorum in a large Board means that very important business may possibly be dealt with by a very limited number of men?—Anything important is referred to a committee before it is dealt with by the Board, invariably.

1173. I think you have promised to give us particulars of most of the things that I desire information on, but with regard to your funds that you receive from the Board of Trade, the General Lighthouse Fund, is there any limitation to the amount you may receive in any year?—No, Sir, up to our requirements. I have never known a case of refusal of an imprest.

Expenditure of for the last 10 years.

1174. Could you give us for a considerable number of years back—say, ten years back—just the total expenditure on the Irish Lighthouse Service?—Certainly, I have it here with me.

1175. I do not suggest details, but we should like details in regard to the one you promised to give us; just the total amount of expenditure?—Under either the Mercantile Marine Fund or the General Lighthouse Fund. I have a statement here showing the expenses for maintenance of lighthouses, etc., showing wages, rents, lighting stores, ordinary stores, fuel, repairs, carriage, boat hire, incidentals.

1176. Will that give us the cost of administration, as distinct from the total expenditure?—Yes, Sir, I can give you that if you give me notice of what you require.

Kingstown: Ground at, leased from Board of Works.

1177. It has been stated that there is an agreement about land leased from the Board of Works at Kingstown; are you conversant with that?—Yes.

1178. (*Chairman.*) The statement to which Mr. Ennis refers is that in 1873 the Commissioners leased certain ground at Kingstown from the Board of Works, and in 1899 applied for sanction to lease further adjoining land from the Board of Works. The Board of Trade made inquiries whether any further expenditure beyond the yearly rental of £6 13s. 4d. was contemplated, and were informed that no further expenditure would be incurred during that year, but that about £15 would be spent in the following year. On the strength of that information the Board sanctioned the lease. But in 1904 the Irish Lights Commissioners entered into a further agreement with the Board of Works by which they bound themselves to carry out certain work, and as this did not involve any immediate expenditure, they did not bring it to the notice of the Board of Trade. Have you any information on that point? That is a statement, you see, that without the sanction of the Board of Trade you entered into an agreement with the Board of Works to carry out certain work on this ground; was that work of an extensive character?—It was levelling a buoy bank we have there. We want to level that for the purpose of shifting these big heavy buoys. Since we have got these new lighted and sounding buoys, we require better appliances for moving them about, they are so much more unwieldy.

1179. (*Mr. Ennis.*) What would the total expenditure on these works, that you covenanted with the Irish Board of Works to carry out, amount to?—So far as my recollection serves me, I think it was £500, but I am not sure; I would not like to be certain upon that point. I think it was £500.

Purchase of Clocks.

1180. Have you in your mind any recollection of a case in which the Irish Commissioners asked sanction for the purchase of clocks from a Dublin firm at £11 each?—I have, Sir.

1181. And that the Trinity House said they could get efficient clocks for £3 15s.?—I remember the occasion, Sir.

1182. Can you give us any information as to why that great disparity in price?—It hardly comes into my department. The Commissioners are most anxious to give every information in their power, and are only too pleased to do so.

Old Head of Kinsale: Improvement of light at, under consideration.

1183. There is just one other point I should like to ask you about. Have you any recollection whether the light on the Old Head of Kinsale has ever been under the consideration of the Irish Lights Commissioners, or whether representations were made to them in regard to that particular light?—Oh, yes, it has been very carefully considered by the Commissioners; they are improving it at the present time.

1184. They considered that the existing light was not as good as they would desire to have it?—We did not consider it sufficiently powerful, and desired to have it improved.

1185. Will the plan of lighting it be a fixed light still, or is it going to be a flash light?—I think it is going to be a flash light; I cannot give you the exact character of the light, but I think it is a treble flash.

1186. But, as a matter of fact, you have actually taken this question in hand, and you are taking steps with the Board of Trade?—To make that important light one of the best in the United Kingdom; and we are improving the fog-signal, as well—cotton powder instead of gunpowder. That will effect a certain economy as well as to cost per charge.

New Works: Choice of sites for,

1187. Who advises you—suppose a new lighthouse has to be constructed or erected—as to the situation of the lighthouses?—The Engineer and Inspector report invariably to the Board, and the Board refer it to the Inspecting Committee, who personally visit the proposed site and decide where the light shall be established.

1188. This is a thing which does not affect the present Board, but, from my own knowledge, at Wicklow Head there are three lighthouses, one over the other, which shows that errors must have been made in the selection of the original sites?—The idea of the authorities in days gone by seems to have been that the higher you put the lighthouse the better. Now they have altered their opinion, and they keep them as close to the water as they possibly can.

1189. (*Chairman.*) I suppose that may be regarded not as a mistake confined to that particular locality, but a general policy which, on scientific grounds, has ultimately been rejected?—Exactly, Sir.

Procedure for Initiation of,

1189a. (*Mr. Ennis.*) Do I understand the procedure to be—take the Kinsale light, of which I have spoken—would there have been negotiations? You refer in your evidence to the Fishguard and Rosslare. The lighting of the channel has been under consideration?—Yes, Sir.

1190. Do you, in the first instance, with your own Inspector and your own Committee, inspect and come to a conclusion whether or not it would be desirable before you communicate with the Board of Trade? You communicate first with the Trinity House?—First we apply for sanction to the Trinity House.

1191. After the Trinity House, you go to the Board of Trade?—The Trinity House pass on our application, with their decision, to the Board of Trade.

1192. Your communication is sent direct to the Board of Trade?—Not in the first instance.

1193. You reach the Board of Trade through the Trinity House?—In the first instance. But we approach the Board of Trade then as to the cost.

1194. So that, as to the financial portion of the case, you approach the Board of Trade for their sanction?—Yes. In the event of the Trinity House refusing to carry out what we consider our lawful requests we can apply to the Board of Trade to command the sanction of the Trinity House.

Irish Lights Board: Constitution of,

1195. Is it not a fact that the Irish Lights Commissioners are, and have been, practically a Dublin Board. I mean, there are eight outside members of the Commissioners?—At the present time there is Sir

William Goulding, whose firm is in Cork and Dublin as well, and Sir Daniel Dixon, of Belfast. Prior to that, there was Sir James Musgrave. Mr. King comes up from Ballylin Ferbane. It is not done with any malice, keeping and confining it to Dublin.

1196. I do not suggest that, by any means. But the constitution—it is a close corporation, it is a matter of co-option altogether?—I think the Commissioners call it self-election. They do not like the word co-option, I think.

1197. There are no interests in Ireland represented outside Dublin and Belfast. What I mean is, that any members who have been appointed do not represent any particular shipping interest, or anything of that kind, I take it?—I do not quite follow you, Sir.

1198. I mean the members of the Board are not representative of any particular shipping interest in out-ports in Ireland, with the exception of Belfast?—No, Sir, they are not.

Interchange of information between the General Lighthouse Authorities.

1199. (*Admiral Henderson.*) I wanted to ask you if your regulations and your system are the same as those of the Trinity House?—I do not know the system at the Trinity House, Sir.

1200. Have you any communication with the Trinity House on their various systems, regulations, arrangements, and methods?—No, Sir. The last communication I had bearing on that was: I wrote to the Trinity House asking for a copy of the rules and regulations for lighthouses and light-keepers, and I have not received it. That is three weeks ago.

1201. Do you communicate with the Scotch Board as to their method of regulation?—No, Sir; I have not done so.

—1202. There is no attempt on the part of the three Boards to copy from one another where they can? I am speaking now administratively—I am not speaking of lighthouses?—I must first of all excuse myself by saying I have only been Secretary for 18 months.

1203. Within that period do you know that there has been any attempt on the part of your Board to find out on certain questions arising what the Trinity House do, or the Scotch Board do?—No, not on behalf of the Board; but personally I do, for my own information.

1204. You may find out for your own information, but there is no general attempt at the dissemination of intelligence?—No, Sir; there is not.

1205. (*Sir Frank Adam.*) Interchange of ideas?—No.

1206. (*Admiral Henderson.*) No interchange of ideas; they look upon each other as independent Boards. I do not think you stated what your own duties were?—I decided to get that copied and send it across.

1207. That will be sent over?—That will be sent over.

Secretary's duties.

1208. Have you anything to do with accounts?—Every week when the docket has been made up which has to be presented to the Board (the account is made up by the week), and when it is completed and entered in this book, which is called the docket book, I get that book brought in to me, and I check over every item in it. I sign the cheques before they go into the Board, vouching their correctness. I sign every account that passes before the Board. I sign all accounts and all disbursement account cheques with three members of the Board.

Commissioners Allowances.

1209. What allowances has the Board?—The sum of £400 a year, to cover the cost of their annual tour of inspection and the lunches which are provided on the occasions when the Committees and the Board meet in Dublin.

1210. Where do you meet?—At Carlisle Buildings.

1211. You have got an office there?—An office there.

Buoys: Replacement of,

1212. I was asking you just now about the replacement of buoys. I understand you have one inspector, and that if a buoy is displaced, though it may be at the other side of the coast from Dublin, you send one of your vessels round?—Sometimes; but sometimes we send a local boat out.

1213. Do you do it by local effort at all?—Yes, Sir; we use hookers or row-boats sometimes.

1214. Have you no means of making a temporary contract for doing it?—Yes; sometimes, if we could get a local steamer, we would not hesitate to do so.

1215. These things happen so far away. If it is a minor case, your inspector cannot go and look after it himself?—We send an officer of some description down. I remember there was so much damage done on the coast that we had to get an old pensioner to replace some of the buoys—a very clever man, but very old.

Depôts for,

1216. What depôts have you besides the one at Kingstown?—We have a buoy depôt at Larne, and are just building a depôt at Roches Point entrance to Cork Harbour, and we have an application to make a buoy depôt at Killybegs Harbour, County Donegal.

1217. That would depend on the number of buoys you have to attend to?—We have six buoys, I think, at Killybegs.

1218. Are your buoys brought round to Kingstown for repair, as a rule?—Always.

1219. All repairs are done there?—All ordinary repairs are done at Kingstown. Buoys in need of heavy repairs are sent away.

Cables: Testing of.

1220. Have you means of testing cables there?—We get our cables tested at the proving house. For instance, when Brown Lenox has the contract they are tested at Cardiff.

1221. How do you send them there?—They are sent direct from the works.

1222. A cable which has been down for some time—do you test them at all? Do you test them at any time?—Yes. We examine them with the calipers, and if there is the slightest bit of wear we condemn that cable and bring it in. We sell all surplus cable.

1223. You do not use that cable, or some of it, for buoys?—We do.

1224. You have no means, to any extent, of applying a test, whatever necessary test it may be?—We cut out the worn links, judging by the appearance of the chain. Every link is tested passing over the bits.

Irish Seamarks: Efficiency of,

1225. Speaking in general terms, are the Irish lights up to date?—I should say so, Sir. I believe our lightships are better than any other lightships in the United Kingdom, especially the new lightships we are getting now with the fixed lanterns.

1226. That is your own design, I understand?—Yes.

1227. Entirely your own design; nothing to do with the Trinity House?—Yes, Sir.

1228. Are there any particular points, so far as you know, that the Board would wish to improve, or has the greater part of the work been done in improving the lights?—I think I am right in saying that my Commissioners would like to have as many of the actual fixed lights done away with as possible, there is only one in the lightships now, and it is about to be altered.

1229. That is the only one that is left a fixed light, but to improve the sea-lights?—That is, lightships.

1230. But of the shore lights?—We have 40 fixed lights, and 10 auxiliary lights fixed.

1231. Is there any wish to make any of them into flashing lights?—We are doing so as occasion offers, Sir.

Accounts: System of,

1232. Do you keep a capital account, separate from what is called a revenue account?—No, Sir; we have got no revenue account.

1233. You do not call what you get revenue?—The result of stores being sold?

1234. Do you separate your new work from what you call your renewals or replacements?—Oh, absolutely.

1235. It is kept on two separate forms of account?—Yes; it is Abstract L, "New Works," in compliance with the directions of the Board of Trade. It is absolutely separate from the cost of maintenance.

Library system for lightkeepers.

1236. Have you any library system?—Yes, Sir.

1237. Shortly, what is it?—Well, every year we buy about £25 to £30 worth of books, and each lighthouse is supplied with a little library. We take it from one station on to the next, and replenish it occasionally. The Committee do that. They examine the books to see whether they are a proper class of literature to put into light-keepers' hands.

Steamvessels.

1238. I think you said the "Alexandra" is the only ship fitted for inspection purposes by the Board?—Well, they carried out the inspection in 1903 in the "Tearaght."

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1239. How many members of the Board will they carry?—Eight members of the Board in the s.s. Alexandra.

1240. They have got accommodation for?—Not in the s.s. "Tearaght." She was built for moving light-keepers.

1241. I see I have got a question here. You said before that your subordinate officers, right the way through, do not know anything about the Trinity House system of doing things?—Well, I do not think I could answer that, Sir.

1242. But you personally have made it your object to find out?—I personally have found out some things about it, but I have not got them officially.

Experiments.

1243. Do you spend any money on experiments?—Very little, Sir; but we do experiment.

1244. Are those experiments separate from those of the Trinity House?—I think so, Sir.

1245. You do not do what, I suppose, they do?—We are experimenting at the present time with the Grubb reflectors, the invention of one of the members of our Board.

Old Head of Kinsale: Improvement of light at,

1246. A question was put to you by Mr. Ennis with reference to the Old Head of Kinsale. That was a great question about 12 years ago. Has anything been done between 1894 and this date about the lights at the Old Head of Kinsale?—Yes; they have improved that light. That comes under one of the improved lights. We have put a 10-wick burner there, a new fog-signal at that station, and there were two new dwellings and an improved light. I have since ascertained this alteration was made in 1892.

1247. In what year?—That would be, I suppose, about eight or nine years ago—perhaps ten years.

1248. Now you are going to improve it further?—To improve it further—put an incandescent light in it.

Steamvessels: Attendance of Officers at Board meetings.

1249. You said the masters of steamers or any of your officers attended Board meetings?—Yes.

1250. Do they come as a matter of course?—They are told: "The officers must always be in attendance." They generally sit in my office during the Board meetings.

1251. Does not that take a good many people away from their work when they are supposed to be there, in that sort of way?—If they are in port they can spare the time.

1252. They come as a matter of course. Who comes besides masters of steamers?—They are the only people who come up specially. The office of the Inspector and Engineer are in the building.

Control of,

1253. Who regulates the work of the steamers—the Inspector?—The Inspector and the Engineer when he requires them.

1254. They manage the whole work of the steamers between them, without reference to any of the special committees?—What we do is this: The Engineer wishes to send, say, a fog-signalling apparatus, or a lighting apparatus to the Old Head of Kinsale—just take a case like that. He consults the Inspector with a view to loading the vessel with other stores for stations *en route*.

1255. The two stations are Kingstown and Castletown?—Kingstown and Castletown.

1256. I do not think you have said how many rock lighthouses you have?—I will give it to you.*

1257. You have given the total of the others?—I have given you the number of rock, island and land stations; I can give it you in five minutes.

New Works: Initiation of,

1258. (*Sir Frank Adam.*) In regard to important new works, absolutely new works, or the repairs of a previous lighthouse, the changes in it involving considerable expenditure, I understand you to say that often from outside bodies you obtain suggestions?—Applications for improvements of the lights.

1259. And you consider those applications?—In all cases.

1260. And they are referred to one of the Committees—the Inspecting Committee, I suppose, with their consulting Engineer and expert authorities—and may or may not be approved. But in the event of their being approved and passed, how do you treat them? If you have approved of them, in what order do you take them?—We get them all under way at the same time.

1261. Suppose they are expenditure which the Board of Trade will sanction?—We cannot undertake it till the Board of Trade have sanctioned it.

1262. I put the figures absolutely arbitrarily; suppose you had got an expenditure involving £55,000, and the Board of Trade will only sanction £30,000, what is the order in which you pick out the works?—We cannot put works in hand till they are sanctioned by the Board of Trade.

1263. The Chairman points out, after consultation with the Irish Authorities whether one work is more important than another, the Board of Trade decide; well, how does the Irish Authority, your Board, arrive at the conclusion that a particular work is more important than another?—I think it is very manifest, Sir. Take a place like Kinsale, where there is a large amount of shipping passing; it is important to proceed with it at once, with all possible dispatch; the same at St. Johns Point, we get the works under way at once.

1264. (*Chairman.*) It is matter of opinion, I suppose?—It is matter of opinion altogether, Sir.

Old Head of Kinsale:

1265. (*Sir Frank Adam.*) You mentioned Kinsale, but apparently there has been very long delay there?—We had a correspondence with the Board of Trade before the work was sanctioned.

Importance of light at,

1266. And during that correspondence did your Board take up the view that the Kinsale lights were important?—We did, Sir; we always knew it was an important place; it is one of the most important points in the United Kingdom.

Lightkeepers' Dwellings.

1267. There is only one other point that I want information about, and that is with regard to the dwellings of lighthouse keepers; what sort of dwelling do you give them in connection with the lighthouses?—They have five rooms—a kitchen, a parlour, and three bedrooms and outhouses.

1268. Substantially built?—Well, they must be substantially built, or they would not stand in the wild places they are built on.

1269. No other accommodation, I suppose? I suppose in lieu of a house you give them so much a week to find a house for themselves; but there are some places, I daresay, where that would be impossible?—They could not get anything but a mud cabin, with no fireplace, only a hole in the ceiling for chimney.

1270. (*Chairman.*) Is the building of your cottages put out to contract?—Not always; sometimes we have found it cheaper to do it ourselves, but in the majority of cases we have got contracts for them. In the time of the building of the Fastnet, when we wanted to economise the men's time when they were on shore, we utilised them for building these dwellings.

Control of Trinity House and Board of Trade over Irish Lights Board: Delays caused by,

1271. (*Mr. Ennis.*) I forgot to ask one question: You will give us a return, along with the other things you have promised us, of the wages of the lightship crews and the light-keepers? We want to compare them with the other Lighthouse Authorities. I also want to ask, arising out of the question Sir Frank Adam has put, have you found in practice your connection with the Trinity House and the Board of Trade to work satisfactorily in regard to the working of the lights of the Irish Lighthouse Commissioners on the Irish coast? Has there been any disinclination on the part of either of these bodies to sanction your proposals?—They raise objections sometimes; it is quite right to raise the objections.

1272. But I mean, speaking in a general sense, have you found any difficulty in getting work sanctioned that you consider imperative and essential?—Yes, we have a very great deal. Very often works which we have had not the slightest hesitation in carrying out ourselves have been delayed by the Board of Trade and the Trinity House.

1273. (*Chairman.*) Works which they would not have hesitated to carry out if they had unlimited money for the purpose?—They are ultimately passed both by the Trinity House and the Board of Trade. I could not recollect a single case that we put forward strongly that has had a very voluminous correspondence, that did not ultimately meet with the acceptance of the Board of Trade and the Trinity House. It is only delaying the matter for two or three years.

See Appendix B, VI.

ish sea-arks: efficiency of,

1274. (*Mr. Ennis.*) Do you consider the lighting of the Irish coast at the present moment what your Board would desire?—I think they are satisfied with the condition. We could bring the lights up to date, some of these catoptric lights, but the coast is very well lighted indeed.

1275. You are still anxious to have an improvement in the lights?—The Commissioners would like to have them as good as possible, and get rid of the catoptric lights.

1276. (*Chairman.*) That is being done?—It is being gradually done.

ocal Light-ouse uthorities:

1277. (*Colonel Herbert.*) There are other Lighthouse Authorities besides the Commissioners?—Oh, yes—the Local Harbours, Waterford, Cork, Wexford, Dublin, Belfast, Carlingford, etc.

1278. What are those—statutory authorities?—Well, the London and North-Western Railway Company are greatly interested in Carlingford; the local authorities are the Carlingford Lough Commissioners. The Belfast Harbour Commissioners are constituted the Lighthouse Authority for Belfast Lough.

1279. By what authority are they constituted; these different bodies?—Different Acts of Parliament.

1280. They are statutory?—Oh, yes, they are statutory.

1281. All of them?—All of them, I think.

urisdiction

1282. Is there any crossing of responsibility between the functions exercised by some of these authorities and your own?—No, Sir; they cannot alter any light, buoy or beacon, nor any floating mark in any way, without the sanction of the Commissioners of Irish Lights.

1283. How far do they go from the coast, if they put down buoys and so forth?—They are right along the coast. In the case of Dublin River you can see the lights when you are coasting; the same in Belfast Lough, you can see them when you are coasting.

1284. (*Mr. Ennis.*) The jurisdiction of the local authorities does not extend seaward to any distance?—No, not seaward.

1285. (*Admiral Henderson.*) Have you any disputes with the local authorities as to whether you or they should put down a buoy?—Very seldom, but very frequently in the case of the removal of wrecks, which we consider in the jurisdiction of the local authorities. They have, however, the right of appeal to the Board of Trade in cases of dispute.

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and number of,

1286. (*Mr. Ennis.*) Can you tell us what number of harbours in Ireland possess statutory boards; I mean local statutory authority?—I asked for the returns to be made out; they were not given to me, but a Blue Book published by the Board of Trade gives the whole of the information.

1287. (*Admiral Henderson.*) Mr Cook might give us that return, if it is made out, of the number of local lights in Ireland.—I did not take that to be Mr. Ennis' question.

1288. (*Mr. Ennis.*) No, my question was, what was the number of Harbour Boards that were constituted by statute?—Yes. Do you include amongst local lights, lighted buoys?

1289. (*Admiral Henderson.*) I mean the lights that are not under your control?—You can get all these from the Admiralty List of Lights.

1290. (*Chairman.*) The Irish Commissioners are entrusted with the charge of looking after local lights; they must, therefore, have a list of the lights which they have to look after?—That can be got for you.

1291. We had better have a list?—A list of local lights.

1292. (*Colonel Herbert.*) The inspecting authority of these local lights is the Irish Commissioners?—A list of local authorities and lights.

(*Chairman.*) Local seamarks.

1293. (*Admiral Henderson.*) There is one question I might ask: Have you any suggestions to offer as to any improvement in the administration of the light-houses; are you empowered to offer any?—I am not empowered to offer any. It is a matter that did not come before the Commissioners at all; we did not know what form the Inquiry would take. I have to apologise for having my notes in such a slipshod fashion; I only brought them over in case I was asked a question.

FOURTH DAY.

Tuesday, 20th November 1906.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Mr. Coventry Dick Peddie, called in; and examined.

1294. (*Chairman.*) You are Secretary to the Scottish Lighthouse Board?—I am, Sir.

1295. You are here to give evidence on their behalf? Yes.

Northern Lighthouse Board: Constitution of,

1296. Will you first describe to us the constitution of the Commissioners from the date of their original appointment onwards?—The Commissioners were constituted by Act of Parliament in 1786, the purpose then being to erect four lighthouses at different points on the coast of Scotland. I do not know that I need name the points; they were extreme points of the East, North, West, and South-West. That was by 26 George III., Chapter 101. The Commissioners were then 19, namely, the Lord Advocate, the Solicitor-General for Scotland, the Lord Provost, and Eldest Bailie of Edinburgh, the Lord Provost and Eldest Bailie of Glasgow; the Provosts of Aberdeen, Inverness, and Campbeltown; the Sheriff Deputes of the counties of Edinburgh, Lanark, Renfrew, Bute, Argyll, Inverness, Ross, Orkney, Caithness, and Aberdeen. Five then, as now, formed a quorum.

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1297. Were there no lighthouses in Scotland prior to that date?—There were lighthouses; there was one in the Clyde on the Cumbrae, and there were two light-houses on the Tay, the Buddonness lighthouses, which are still there, and there was a coal light on the Isle of May, but otherwise there were no lighthouses.

1298. How were those lights maintained?—The Clyde lighthouses were maintained, as they are now, by special Trustees constituted by Act of Parliament; the Tay lighthouses were maintained, I think, as they are now, by the Harbour Board. I do not know that the Harbour Board was constituted then as it is now, but it was a local body entirely.

1299. In fact, those were really lights under local authorities as they are now?—As they are now. Then, Sir, in 1789 the Commissioners were given a general

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power of erecting lighthouses, the earlier Act being confined to the four mentioned in it, and they were also given power to assume as Commissioners "when any new lighthouse shall be erected . . . the Provost, or Chief Magistrate of the nearest Royal Burgh, and also the Sheriff-Depute of the nearest County."

1300. When a Commissioner was assumed or co-opted in that way, I suppose he remained a Commissioner for life?—The question has been raised whether it was personal or attached to his office, but in practice it has been permanent.

1301. Attached to his office, that is?—Attached to his office. Once on the Board they have remained on the Board. In 1798, for business purposes, the Commissioners were made a body corporate with a seal. In 1815 they were empowered to erect two lighthouses on the Isle of Man. Mr. Robert Stevenson, who was the Engineer of the Commissioners, made a tour of inspection round the whole coast, and when he returned he reported to the Commissioners very strongly on the necessity for lighthouses on the Isle of Man. The trade in Liverpool also approached the Commissioners, and they brought a Bill into Parliament which was at first opposed, or, at any rate, was not acquiesced in, by the Trinity House, inasmuch as it was supposed to infringe on their jurisdiction. That opposition was, however, withdrawn, and the Commissioners erected these two lighthouses, mostly, I think, because they undertook to do it more cheaply than the Trinity House could, or thought they could do it. That afterwards became a general power. In 1836, the Commissioners were given a general power of placing buoys and beacons within their area, which they had not before.

Board of Trade control over, established.

1302. In 1854 all these Acts were repealed?—All these Acts were repealed and the Commissioners were re-constituted with practically the same powers, but under the financial control of the Board of Trade.

1303. The financial control of the Board of Trade was introduced for the first time under the Act of 1854?—In 1853 by the Merchant Shipping Law Amendment. The 1854 Act was the substantive Act. They were given power by that Act to assume certain members, which was rather more extensive, that is to say, it was "The Provost or Chief Magistrate of any Royal or Parliamentary Burgh on or near any part of the coasts of Scotland, and the Sheriff of any County abutting on such coasts." I may say, Sir, that the Board is now as it was shortly after the passing of the 1854 Act, and that the powers of assumption of the Commissioners are exhausted, as far as sheriffs are concerned, although I understand they could still assume about 40 provosts and magistrates of Royal or Parliamentary Burghs.

1304. That is to say, if they were to exercise all the powers of assumption which they possess?—That is so, Sir. By the same Act the Commission was given for the first time a general power to erect lighthouses on the Isle of Man.

Isle of Man placed under jurisdiction of,

1305. In other words, the Isle of Man was included for lighthouse purposes in the area?—Yes.

1306. Then were any further changes introduced under the Consolidation Act of 1894?—It was practically a repetition of the provisions of the 1854 and other Acts, with the exception that by inadvertence five of the Commissioners who had been originally named were omitted, and they were assumed by the Board immediately after the Act came into operation.

1307. The general power of co-opting members remains?—Exactly the same practically.

1308. And the fact of their being omitted from the Act therefore made no practical difference?—No; it was purely an inadvertence I understand.

Present members of,

1309. Would you describe to us the Commissioners by their offices at the present time?—The Commissioners are the Lord Advocate; the Solicitor-General for Scotland; the Lord Provost of Edinburgh; the Lord Provost of Glasgow; the Lord Provost of Aberdeen; the Lord Provost of Dundee; the Provost of Inverness; the Provost of Campbeltown; the Provost of Greenock; the Provost of Leith; the Eldest Bailie of Edinburgh; the Eldest Bailie of Glasgow; the Sheriff of the Lothians and Peebles; the Sheriff of Lanark; the Sheriff of Renfrew and Bute; the Sheriff of Argyll; the Sheriff of Inverness, Elgin, and Nairn; the Sheriff of Ross, Cromarty, and Sutherland; the Sheriff of Caithness, Orkney, and Shetland; the Sheriff of Aberdeen, Kincardine, and Banff; the Sheriff of Ayr; the Sheriff of Fife and Kinross; the Sheriff of Forfar; the Sheriff of Dumfries and Galloway; and the Sheriff of Roxburgh, Berwick, and Selkirk.

1310. The general object seems to have been then that all the various localities should be fully and properly represented. It was the interest of localities rather than any knowledge which these gentlemen might possess of navigation and the necessities of lights on the coast that prompted this particular constitution?—Yes, Sir, as far as one can see it was. As a matter of fact, it was brought up in the first instance at a Convention of Royal Burghs in Edinburgh, the necessity for lighting the coasts, but I do not know that it was only to safeguard the interests of particular localities. It was also to see that the interests of particular localities were not looked after to the prejudice of other localities. In fact, as far as I can see, the Board was appointed as being purely without prejudice from any point of view, and yet qualified to judge of the need of each locality and its special circumstances.

Powers and duties of,

1311. Will you now proceed to describe the statutory powers and duties of the Board?—As far as general management is concerned, the Commissioners have the superintendence and management of all the lighthouses, buoys and beacons in Scotland and the adjacent seas and islands and the Isle of Man. That is, however, subject to certain rights or powers which are exercised by local authorities. They are in various respects subject to the control of the Trinity House and the Board of Trade as regards their general management; the Trinity House has a power of inspection of their seamarks at any time, and the Board of Trade may also, on complaint, authorise a similar inspection by any person or persons.

1312. Do these inspections by Trinity House take place frequently?—In my experience, very seldom.

1313. Have there ever been inspections by the Board of Trade on complaint?—Not as far as I know; certainly not in the recent history of the Board.

1314. So that that particular form of control has remained a dead letter?—I know of no complaint to the Board of Trade which would have authorised an inspection by them. The Trinity Brethren have on occasions when they are in the vicinity of lighthouses visited them, and they, no doubt, inspect them from the sea when passing. The Board of Trade is entitled to ask for returns and information which they require. In financial matters the Commissioners are entirely under the influence of the Board of Trade. The Commissioners are not empowered to spend any money at all without the express sanction of the Board of Trade.

1315. I think you said that the financial control of the Board of Trade began in 1853?—In 1853, Sir. Before that the Commissioners were entirely uncontrolled as far as finance was concerned, except that they had to present annually an account to Parliament.

1316. And as regards the construction of lighthouses, etc.?—The Commissioners' lighthouse powers are to erect, place, add to, alter, remove, or vary the character of lighthouses, beacons and buoys. But that, in practice, has been entirely restricted, or nearly entirely restricted, to general as opposed to local seamarks, a distinction which has given rise to many anxious debates both with the Board of Trade and with the Trinity House, the circumstances of the Scottish coast being such that questions arise there which are not likely to arise in England, where there is a plain seaboard.

1317. The question arises, I presume, chiefly where there is no local Lighthouse Authority with power to establish seamarks, but where a lighthouse or other seamark would undoubtedly benefit the locality, though it might be of no benefit to passing trade generally. That is the point on which the difficulty turns?—That is the general line, Sir. I do not know that the Commissioners have ever gone the length of putting down a light which would only be of benefit to one locality and not of benefit to at least some general passing navigation.

1318. They would have power to do so, however?—I think so. Under their Acts they have power to put down lights anywhere where they do not inter-

fere with the rights and powers of existing local authorities.

1319. Speaking generally, it resolves itself into a question of degree. If there are two new works suggested, and one of these would be of more use to passing trade generally and the other of less, then the former would be preferred?—Undoubtedly, Sir. The lines that are followed were laid down, I think, in the 1836 Act. It was either laid down then or in the report of the Select Committee of 1834 that, as far as possible, the General Authorities should confine their attention to marks which were not within the scope of local authorities; but the real difficulties arise where the proposed seamark is apparently local, but there is no local authority.

1320. Then will you describe the nature of the control vested in Trinity House and the Board of Trade as regards the exercise of the lighthouse powers?—The Commissioners first of all put forward a scheme which is submitted to the Trinity House, with their reasons for desiring to carry out this scheme, and the Trinity House are asked for their approval. If they grant it the matter goes to the Board of Trade, which has to confirm that approval by its sanction. If the Trinity House refuses its approval there is still an appeal to the Board of Trade, their sanction being sufficient even if the Trinity House approval is refused. The scheme having been sanctioned, the Board of Trade have to be approached for financial sanction; that having been granted, the work then proceeds.

1321. So that for the erection of, say, a new lighthouse, first of all you have to get the approval of the Trinity House; if you obtain that approval you have to go to the Board of Trade and obtain their approval, and, in addition to that, there is a general financial control by the Board of Trade?—That is so. A special financial control it also is in this case, as a matter of fact, because we have not only to get general sanction to the estimated expenditure, but we have to submit after that every offer for special sanction before we can proceed with the work.

1322. But the Board of Trade once having sanctioned a work, would not, I presume, prevent its being carried out by making objections to the financial proposals, though they might ask for modifications of them?—They have not done so for a great many years, but in the early history of the Board of Trade control there seem to have been numerous contentions on that very point, owing to the desire of the Board of Trade to cut down the estimates and to their refusing in fact to allow the Commissioners to proceed unless they did the work for a smaller sum.

1323. So that in early days they made objections which were ostensibly financial objections but which were fatal to the proposal altogether?—They certainly delayed proposals for some years.

1324. That has not been the case lately?—No.

1325. Does it often happen that the sanction of Trinity House is refused to proposals by the Commissioners?—Yes, Sir, fairly frequently. In fact, in my experience of six years the Trinity House approval has been refused considerably more frequently than the sanction of the Board of Trade—that is to say, after the Trinity House have refused to approve, the Board of Trade on appeal have frequently agreed with the Commissioners. I do not say such cases are numerous in comparison with the number of the seamarks put forward, but they are annual; certainly I do not think a year has elapsed.

1326. Perhaps you will put in the list of proposals made by the Commissioners within recent years which have been objected to either by Trinity House or by the Board of Trade?—There is such a list in preparation at the present moment, and it will be put in.

1327. The control of the Trinity House began at what date?—In 1836, Sir, the Commissioners were forbidden to place any seamark without the approval of the Trinity House. Of course, the financial question did not arise there.

1328. Was there an appeal then?—There was an appeal to the Privy Council—to the King in Council.

1329. In fact, the Board of Trade take the place of the Privy Council, so far as appeals from Trinity House are concerned?—Yes. The Trinity House in 1836 had nothing to do with the financial aspect of the question, because each of the Lighthouse Authorities was master of its own funds.

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1330. I think we are coming to that. Will you proceed, then, to give us an account of the method by which funds were obtained?—Prior to 1853 the Commissioners had their own funds, the revenue from their light dues, all this revenue being devoted entirely to lighthouse purposes, and an annual account being presented to Parliament. In 1853, with the inauguration of the Mercantile Marine Fund under the charge of the Board of Trade, the Commissioners ceased to have control over their funds. They still collected light dues, but these were paid into the Mercantile Marine Fund.

Expenditure: Method of obtaining funds.

1331. After that date, after 1853, the Scottish lights were paid for out of the general fund?—Yes, Sir.

1332. Up to that time they had been paid for out of the Scottish light dues?—Yes.

1333. Did Scotland gain by the change or lose?—Well, I am not prepared to say; I think that Scotland had more difficulty after 1853 in carrying out works which were thought to be necessary than before that, but whether that implied———

1334. Was more spent, on the average, or less?—Well, I cannot say; it is a matter I have not looked into, but I can easily ascertain if the Commission attaches importance to it. The light dues in Scotland were collected by the Commissioners till the 1st April, 1883, and then by arrangement the collection was taken over by the Board of Trade.

Collection of light dues in Scotland.

1335. That was an administrative arrangement?—Entirely, Sir; I think it was purely to save money. I rather think that at the same time the collection of the Irish dues was taken over.

1336. You are still legally responsible?—We are still legally responsible. Our expenditure is now met by imprest from the General Lighthouse Fund.

1337. (*Admiral Henderson.*) You are legally responsible for the collection of light dues?—We are still.

1338. The same as the Trinity House?—Yes.

1339. (*Chairman.*) It is an administrative arrangement?—Yes, and as a matter of fact, we take no practical concern with them. Then, Sir, there is a very close audit of all accounts, which are forwarded to the Board of Trade quarterly, and the Board of Trade has power at any time to inspect the Commissioners' books. That power was exercised in 1891, when there was an inquiry by the Board of Trade into the Commissioners' management of their office and books. Mr. Stoneham and Mr. Trevor then came to Edinburgh for the purpose.

Control of Board of Trade over.

1340. Did that arise out of any particular circumstance?—I think it arose out of applications for increase of salaries by members of the staff. It did not arise out of any shortcomings or fault in the accounts submitted to the Board of Trade, or anything of that kind.

1341. Then next as to local lighthouses?—The Commissioners were given a control over local and harbour seamarks in 1836, as the result of the report of the Select Committee of 1834. Their power has been extended in some ways, and is now embodied in the 1894 Act, Sections 652-4. I may say, Sir, that this matter of supervision of local seamarks gives rise to a great deal of work, and a large mass of correspondence in the office. The actual supervision is triennial. It is carried out by the Commissioners' Engineer, and a report of the triennial inspection is, through the Board of Trade, submitted to Parliament.

Local Lighthouses: Control of Northern Lighthouse Board over.

1342. You are not bound by the provisions of an Act of Parliament to make a triennial inspection?—Not to make a triennial inspection, but it has been done with the sanction of the Board of Trade since 1869.

1343. Can you give us an idea of the number of local lights?—Yes.

1344. We shall probably ask later for a detailed list of them?—There are 139 local authorities and 260 lights, not including lighted buoys; about 140 local authorities, with 260 lights, not including buoys.

Number of.

1345. And all those 260 lights are, as a matter of fact, inspected in the course of the three years?—They are.

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Wrecks: Powers as to removal of,

1346. And a report laid before Parliament?—The Commissioners send a report to the Board of Trade, and by the Board of Trade it is laid before Parliament.

1347. Removal of wrecks is included in the statutory power of the Commissioners?—Our powers regarding removal of wrecks are laid down in the 1894 Act by Sections 530 and 534, but the extent of the Commissioners' work under this head is not considerable. The results are inconsiderable, although the work of searching for wrecks, or, rather, searching for derelicts, is troublesome. The coast of Scotland seems to be such that wrecks, as a rule, do not become dangerous to navigation.

1348. You would not think it necessary, then, to deal with a wreck unless it were in the fairway?—Whenever there is a report of a wreck in any place we examine it at once to see if it is dangerous, but it seldom is dangerous. Our chief difficulty is searching for reported derelicts, especially in the North Sea.

1349. But whenever a report is made to you, you institute a search?—Immediately; and although the sum actually charged amounts to very little, about £50 a year, that, of course, does not include the expenses of the steamers searching for derelicts and wreckage.

1350. A considerable part of the time of your steamers is taken up in these searches?—Not a considerable part; but, for instance, this autumn, on two or three different occasions, the Firth of Forth boats have had to be out looking for derelicts, and standing by a wreck which was dangerous to navigation in the Forth; but, as a matter of fact, the time occupied is not very considerable in the whole year.

Administration of Northern Lighthouse Board:

1351. Passing to the machinery of administration, would you tell us how the Commissioners carry on their work?—In the first place, the headquarters of the Board are in Edinburgh, and there is no responsible official, no superintendent or other responsible official, permanently stationed elsewhere, with the exception, of course, of the steamer officers. The Commissioners' work is practically entirely carried on by the Board.

1352. The whole Board?—By the whole Board, Sir. There is a Committee, a standing Committee on Finance, and another standing Committee on New Works, and there are numerous occasional committees; but all these committees are practically advisory. They report to the Board, and a decision is come to, and action is taken by the Board.

1353. How often does the Board meet?—The Board meets on Wednesdays, as a rule fortnightly, with a short interval at Christmas, one at Easter, and one in summer, the average number of meetings for the last five years having been twenty in the year, with an average attendance of ten.

1354. The meetings are always in Edinburgh?—Yes, Sir.

1355. When questions of importance come before the Board, are they referred by the Board to committees for a report?—Frequently any question, the consideration of which is impracticable at a large Board or when further inquiry or consideration is needed, is sent to a committee, either to the Finance Committee or the New Works Committee, or to an occasional committee, of which there are many. I may say that the number of committee meetings on the average is 40 in the year, there being an attendance at each of between three and four.

Committees:

1356. What is the total number of the committees?—Well, they vary very much.

Finance Committee.

1357. They vary; tell us the numbers of the Finance Committee.—Even that varies. The Finance Committee is composed practically of all the members of the Board who take an active interest in the work of the Board who are resident in Edinburgh, and it probably numbers nine or ten, with a quorum of three.

New Works Committee.

The New Works Committee is practically a sub-committee of that—that is to say, that all the members belong to the larger Committee, although they do not report to it—and is composed of those members of the Board who, from having been on numerous inspection voyages, etc., are particularly conversant with the conditions of different places on the coast.

1358. But they also mostly consist of members resident in Edinburgh?—They do entirely, Sir.

1359. Could you give us any idea with regard to meetings of the Board, as to the attendance of members who do not reside in Edinburgh?—Well, Sir, that attendance is not considerable by any means. In fact, the only members outside Edinburgh who have attended, certainly of late years, with any regularity, have been the Sheriff of Lanark, who is resident in Glasgow, the Eldest Bailie—that is, the Senior Magistrate—of Glasgow, and the Provost of Leith. The latter attends with great regularity.

1360. Leith may be regarded the same as Edinburgh?—That is so; but the Provost of Inverness, the Lord Provost of Aberdeen, the Lord Provost of Dundee, the Provost of Greenock, and the Provost of Campbeltown are practically never at meetings.

1361. So that in effect the Board really resolves itself into Edinburgh members of the Board and a certain number of Glasgow members?—It does so, certainly for administrative work in the office. There are, however, representations at intervals from outside members of the Board on behalf of those interested in lighthouses. They have representations made to them, and they forward them to the Board. At the same time, there is an annual report of the proceedings of the service—rather a summary of what has been done in the year—and that is circulated to all the members, and they know what is going on. It might be of some use to the Commission if I produced our last annual report.

1362. Yes, we may as well have that put in. You said committees generally met 40 times a year?—Yes.

1363. But those 40 meetings are distributed over the various committees?—That is so; I have not divided them up. They do not meet on regular days. The Finance Committee meets as it is wanted, and I may say to some extent it takes the place of the Board in emergencies.

Finance Committee.

1364. It seems, from your description, that the Finance Committee very nearly is the Board; they are nearly the same thing?—The personnel is very nearly the same as that of the active Board, but it really has no powers, except in emergencies. Where it is impossible to summon the Board, the Finance Committee is summoned, and it may take action.

1365. Does the Board delegate power to these committees to act in emergency?—There is no express delegation, except in special cases, but there is certainly an understanding that the Finance Committee, which is much more easily summoned, and which has a much smaller quorum shall take action in emergency and report to the Board for its approval.

1366. In reporting to the Board they are practically reporting to themselves?—Yes, except that there are members of the Board who are not members of the committee. There are certain regulations about calling the Board. An agenda paper has to be posted; certain notice has to be given, which makes it necessary for some committee to have powers in emergency. That is really what it means.

1367. And this notice would enable any other members to attend?—At the Board meeting, where the Committee's action comes up for approval.

Occasional Committees.

1368. Then as to occasional committees, what are their duties?—If any question comes up which requires further consideration and inquiry, in fact, is not suited for being immediately dealt with by a large Board, it is remitted to a small committee, which is appointed by the chairman, and which consists, as a rule, of members who, to his knowledge, are qualified to deal with the special subject, whatever it is. They are on a few occasions appointed with powers, but very seldom. As a rule, they report.

1369. Is the work of inspection carried out by committees appointed for the purpose?—Yes, Sir, there is an Inspection Committee appointed every year.

Inspection Committee, work of,

1370. They carry out their work during the summer principally, I suppose?—Generally for about three weeks at the end of July and beginning of August.

1371. During that time do they go round the whole coast of Scotland?—No, the service is much too large. They are away for three weeks; but as their work has to be done during the day, landing being, as a rule, impossible at night, they can only cover a little more than half the service in each year. On an average, they land at 50 stations on each inspection voyage, and they examine everything from the light-rooms to the oil cellers and dwellings, and so on.

1372. Are they accompanied by the Engineer on these inspections?—No, Sir, the Secretary accompanies them.

1373. Only the Secretary?—Yes.

1374. (*Colonel Herbert.*) Are these included in the 40 meetings?—No. The Inspecting Committee varies in size, and naturally fluctuates from time to time with the ability of members to get away. It must not be less than two, and during the last five or six years it has generally been four or five, although it has been as many as seven.

orthern ighthouse oard: ppointment Chairman.

1375. (*Chairman.*) Is the chairman appointed from time to time?—Every six months a new chairman is appointed. It is taken in order of seniority, as a rule, and the chairman is available at all times to advise the Secretary on any points which may arise. He is in the office nearly every day; in fact, as often as there is any chance of his services being required, and he is always available.

1376. Almost from the nature of the case, he must be one of the residents in Edinburgh?—He always has been, Sir, or the Provost of Leith.

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1377. We have asked the other Lighthouse Authorities for a copy of the minutes of the Board and of the Committees, including the Visiting Committee, from the 1st April to the 1st July of this year. You could furnish us, I presume, with the same information, together with the attendances of members. Perhaps we ought to have the attendances of members by name?—That happens to include a month during which the Board does not meet—the month of April—but if you would take from the 1st May, June, and July——

1378. Very well, we will take the 1st May till the 1st August?—Or, perhaps, the winter months would show more clearly the actual work which comes up. There is an important time, when most of the contracts come up; from the 1st January.

1379. Well, the 1st January to the 1st April.—Very well, Sir.

ew Works: ommittee n,

1380. Did you say you had a standing committee to which new works were referred, or are new works referred to an occasional committee?—There is a standing Committee on New Works, which is composed of four or five of the Finance Committee. The requests for new works which come up before the Board, if they are not immediately dealt with, are remitted to the New Works Committee, and in the summer of each year the New Works Committee considers all proposals, old and new, for new works round the coast.

nitiation of,

1381. How do these proposals for the most part originate?—The majority of the proposals have been before the Commissioners for a great many years. It is most unusual now to get an application for a seamark that has not already been contemplated by the Commissioners, and has been awaiting the necessary funds.

1382. When originally taken into consideration by the Commissioners, was it on the suggestion of the locality or some branch of the shipping trade?—Almost invariably, on application of people interested.

1383. You feel no doubt, therefore, that you are in close touch with people interested?—I think we are in as close touch as any general and impartial Board could be.

1384. The Board has not, as a general rule, made it its business to consider on its own account, and apart from any representations made to it, what lights may be required?—I can only say that there is an enormous programme before the Commissioners at the present time, and it really means in each year selecting what they consider out of these lights or seamarks are the most urgent, and what they are the most likely to obtain sanction for, in view of the state of the Lighthouse Fund and other considerations. I cannot at this moment recollect any light or any mark which has been proposed, say in the last six years, which has not been fully considered by the Commissioners, and determined on years ago, unless it be, perhaps, seamarks which have been rendered possible by improvements in the science of lighting, such as gas lights. For instance, in two cases we have unattended gas lightvessels, which were not within practical politics until recently; one boat 75 feet long, and the other 60 feet long, absolutely unwatched, but riding in localities that no ordinary buoy would ride in. But apart from matters of this kind, I do not think there is a case where the Commissioners have actually initiated any new work in recent years.

1385. When a proposal is received by the Commissioners, it is simply placed in a list which comes up for consideration each year?—I should hardly say that.

1386. Or is each proposal definitely dealt with when it comes up originally?—It is dealt with when it comes up originally.

1387. And the Commissioners then decide that it is desirable, or that it is undesirable, that a seamark should be erected in accordance with the proposal?—That is so; and further, if desirable, whether it is desirable at once to proceed with it, or whether there are some urgent works which should be undertaken first.

1388. There are a certain number of these proposals that I presume are definitely rejected?—Yes, Sir; generally on the ground that they are too local, although there are some rejected on the ground that they are quite unnecessary from any point of view.

1389. Then, in addition to that, you have to consider whether particular lights should not be improved, the lighting power increased, and so forth?—Yes, Sir, that is very often suggested by the Commissioners. There is no doubt they have put forward proposals in recent years, especially for the alteration of lights from fixed to flashing, for which there has been no specific request.

1390. Is it the business of any committee to consider whether the improvement of particular lights is desirable?—Yes; the New Works Committee consider that on a report by the Engineer, who submits all the particulars with an estimate of the cost, and they have taken the views of shipowners and shipmasters on the subject, in cases where there may have been some doubt.

1391. That has not been done as a matter of course, but only in special cases?—Yes, Sir.

Head Office Establishment: Personnel.

1392. Will you proceed to tell us the number and nature of the official staff employed?—The staff is situated in Edinburgh, and it consists of a Secretary, an Engineer, an accountant, five clerks, a Superintendent and his assistant, and three district superintendents. Although the superintendent, his assistant, and the three district superintendents are included in the headquarters staff, I may say that the Superintendent and his assistant are absent from Edinburgh, on an average, four to five months in the year, and the district superintendents are absent eight months in the year.

1393. It is the business of the district superintendents to see that the lights within their districts are properly maintained, and to report if they are not?—Well, they have special functions which I may be permitted to deal with later on.

Secretary's duties.

1394. Let us take these various officials in order then.—The Secretary, apart from mere secretarial duties of correspondence, preparing reports, keeping minutes, preparing business for committee and Board meetings, and the like, has also the legal work of the Board to do, except the work of important conveyancing, or, of course, any cases of law suits; but all contracts and agreements, minor leases, and the revising of minor feu charters, and so on, are done by the Secretary; the result being that the law expenses of the Board are trifling, except in cases where perhaps there has been, for instance, a Board of Trade inquiry, which necessitated the paying of witnesses, or an arbitration, but those are of very infrequent occurrence. Then, Sir, the Secretary is not only Secretary, but he is also general manager, and he is responsible to the Commissioners for every part of the service, and for the due performance of their duties by each member of the staff, both indoor and outdoor; and that being so, he has to inspect all the lighthouses, steamers and stores, in fact, every place out of doors; and to keep himself conversant with the whole work of the service, and to look after the health and welfare of all belonging to it. As far as the accountant's department is concerned, he has also to assure himself that the annual estimates are properly prepared, and to sign them. He has to sign the quarterly accounts; he has to balance the cash-book and check the cash transactions once a month; and he is consulted by the accountant on any question which may arise. In the same way he is consulted by the Superintendent on any question which may arise outside the routine of his department, and

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with the Superintendent, he arranges for report to the Commissioners the transfer of keepers and the appointment and promotion of the outdoor staff. The superintendent arranges all the programmes of the steamers, and submits them to the Secretary for approval, and so on. Therefore he is kept in constant touch with every department of the service.

1395. Do the representations of the Engineer go through the Secretary?—They pass through the Secretary, but they are addressed to the Board.

1396. The Secretary is the pivot of the administration really?—Well, he is the channel of communication between every department and the Commissioners, both for out-going and for in-coming business.

1397. As general manager, he would deal with all ordinary matters of administration himself, I suppose, without thinking it necessary to bring them before the Board at all?—The amount of responsibility taken by the Secretary is a matter of custom and varies with circumstances, but practically everything outside the established routine of the service is reported to the Board. In many cases action has necessarily been taken, but it is reported for approval, especially everything to do with their statutory functions.

1398. He is very much in the position of a general manager of a big works?—I think that is the case.

1399. Do questions of discipline come before the Secretary?—Yes, Sir, the Secretary deals with every question of discipline in the service. If the matter is serious, he reports it to the Board or to the Chairman, and if necessary he holds an inquiry on the spot. If the matter turns out to be of sufficient importance, it is there dealt with by the Board. Any question of a penalty of any kind is decided by the Board, but any disagreements between lightkeepers, any complaints about non-sounding of fog-signals or the efficiency of a light, are in the first instance inquired into by the Secretary, generally on the spot, if the matter is serious at all.

1400. Appointments and dismissals of lighthouse keepers would all be done by the Board, I presume?—Yes; and all transfers, promotions, everything of that kind, are done by the Board.

1401. Is that all you have to say as regards the Secretary?—Yes, practically "Secretary and General Manager" covers the whole ground.

1402. Is there anything more you would like to say?—No, Sir.

Engineer's duties

1403. Let us pass to the Engineer?—The relations of the Engineer to the Board are special. Down to 1853 the Engineer was a salaried servant of the Board, but when the Commissioners came under the Board of Trade, they objected to this, and insisted upon the Engineer being made merely consulting, which he has been since, although there have been proposals made on occasions by the Commissioners to have the old state of things reverted to. The Engineer, therefore, is consulting. He is paid a commission on the cost of new works,

and system of remuneration.

and for remits on various matters, which are very numerous, he is paid at a settled rate, really according to time; in fact, he is paid five guineas a day for work in connection with remits. In addition to that he attends all Board meetings, for which he is not remunerated, and he attends all committee meetings where his presence is desirable, and he attends the Commissioners in London at conferences at the Board of Trade, and so on. I may say, Sir, that Mr. Stevenson is not only the Commissioners' Engineer, but also their Scientific Adviser, being a graduate in science, and, of course, his knowledge of the coast is most exhaustive. For over 100 years now, from father to son, the Messrs. Stevenson have been Engineers to the Northern Lighthouse Commissioners.

1404. But the feeling of the Board, I take it from you, is that they would like to revert to the system in use before 1853?—That is so, and I may say that at the present time an application is before the Board of Trade to revert to that system.

1405. Do you think the present system works unsatisfactorily, or is a change desired on account of the prejudice which it may excite?—Entirely on account of the prejudice; I do not think it will make any difference whatever in the economy or efficiency of the service whether Mr. Stevenson is on a salary or not.

1406. Apart from any question of economy or efficiency, you feel the present system is open to criticism?—It has been criticised, and, in any case, the amount of work occasioned to Mr. Stevenson and our Accountants' Department in making up his accounts, the Commissioners think is absolutely unnecessary.

1407. Could you tell us how much time the Engineer gives on the average; is he always at your disposal?—Always.

1408. He would regard his duties to the Commissioners as coming before anything else?—I certainly think he would. I am sure that Mr. David Stevenson looks on his duties to the Commissioners as of most importance.

1409. As paramount?—As paramount. His firm have an office in the Commissioners' premises, for which they pay rent. They pay their staff; we have nothing to do with that, but Mr. Stevenson is available at any time for consultation by the Secretary or any other official, and, as a matter of fact, is consulted certainly daily, and often many times a day, for which, in the ordinary course, he receives little or no remuneration.

1410. You say he is also your Scientific Adviser: do you spend any money for experiments in the course of the year?—Very little, Sir; we do not spend quite as much money as we should like, as we have not been able to get the necessary funds on one or two occasions.

Experiments:

1411. Have you made application to the Board of Trade for funds to be used for the purpose of experiment?—Well, lately we did so; it was not a very large amount, but we did, and we were unsuccessful.

1412. Perhaps you would put in a report of the amount spent on experiments between 1901 and 1906?—Yes, Sir.

1413. Describing at the same time the nature of the experiments?—Yes, Sir.*

1414. You have nothing more to say with regard to the duties of the Engineer?—I do not think so.

Official Establishment: Accountant's duties.

1415. Let us come now to the Accountant?—The Accountant is also cashier; I do not know that it is necessary to go in great detail into his duties, as they practically extend to attending to all details of finance, from the preparation of the estimates to the rendering of the quarterly accounts to the Board of Trade. From the nature of the service, the amount of detail to be dealt with, and the number of accounts and payments, are very large, and the constant fluctuations of the scale of salaries, and so on, occasion much work and demand extreme accuracy. I may say that he has two clerks in his department.

1416. Out of the five?—Out of the five, one of whom is called the Examiner of Accounts.

1417. The other three are attached to the Secretary's Department?—No; one is attached to the Superintendent, and only two to the Secretary.

Superintendent's duties.

1418. The Superintendent and assistant, what are their duties?—The Superintendent has the actual supervision of the whole outdoor service. He has to visit and inspect lighthouses, the lightship, beacons, well, not beacons and buoys so much—that is more left to the masters of the steam tenders—but the gasworks, storehouses, and so on; he has to satisfy himself of the efficiency of every employé in the service away from headquarters, and to check the station books and returns to see that they are kept properly; he also arranges for the supply of all stores, and for the execution of almost all repairs, and he supplies all the details for the estimates under these two heads.

1419. Does he report to the Secretary?—Yes, Sir, on every station he visits. When I say "he," I mean the Superintendent and his assistant, because they work conjointly; they have very much the same powers; every station visited by them is reported upon.

1420. Do they visit every station in the course of the year?—Every station twice in the course of the year.

1421. In the steamboats belonging to the Board?—Yes, Sir, they go round with the stores and oil, and they send in a written report to the Secretary on printed forms, in which they deal with the lightkeepers, their families, their health, the state of the buildings, the state of the machinery, all repairs ordered, all repairs necessary next year, and add general remarks if necessary.

1422. And does the Secretary in his turn submit that report to the Board, or such parts as he thinks of

* See Appendix B., V.

importance?—Unless there is something outstanding, the Secretary merely notes anything for discussion with the Superintendents when they return, but very seldom anything in these reports is submitted to the Board. Anything of sufficient importance to submit to the Board would probably be embodied in a special report.

District Superintendents' duties.

1423. Then as to the district superintendents, how are their duties distinguished from the duties of the Superintendent and his assistant?—Well, they are mechanical engineers really; their duties are entirely confined to machinery almost. The service is divided into three districts; each is in charge of one district superintendent, who is attended by a hired mechanic, or two sometimes for heavy stations. They go away in April, and they are generally away for eight months visiting every station in the service. They do everything about the light-rooms, examine the domes, test the lightning conductors, overhaul all revolving machinery, examine and repair all the lamps, overhaul all the fog-signal machinery, and so on. They actually open up, and examine every bit of machinery in the service annually, and every necessary repair is carried out by them.

1424. It is their business to see that everything is in good order?—Everything in perfect order. They also report on the condition of the station generally, and on the manner in which the light-keepers perform their duties.

1425. They report to the Secretary also?—Yes. They have various other duties, but these are really their important duties. Any repairs which they find necessary for the ensuing year they take a note of, and on their return to Edinburgh they make all the necessary drawings and specifications, and superintend the making of small parts which may be needed for their next year's work. I may say, Sir, that they also do all the testing of oil when they are in Edinburgh.

1426. Now, supposing that during the four months when they are in Edinburgh some important repair was called for, they would visit the lighthouse where the repair was needed before anything was done?—They would go and make the repair.

1427. They would go and make the repair themselves with their mechanic?—They would, if necessary.

1428. So that they would always be ready to leave at a moment's notice?—At a moment's notice. I may say, however, that in six years I do not remember a case of such a breakdown in the service either in a light-room or in fog-signal engines as has necessitated the departure of a district superintendent to effect repairs.

1429. Their duties are so efficiently performed during the eight months when they are on inspection work that for the other four months nothing requires to be done?—It does not, that is my actual experience. In fact, in six years there has been no failure of a light or fog-signal on account of breakdown of machinery. There have been one or two cases, such as an air-pipe fractured in an extremely hard frost; I do not include things like that.

1430. The lighthouse keeper under such circumstances would at once telegraph?—At once.

1431. And one of these district superintendents would immediately go off with his staff to repair the damage?—Yes, Sir, if it was necessary and he was available.

Buoys and Beacons: Maintenance of,

1432. Have the district superintendents nothing to do with buoys and beacons?—No, nothing, Sir, except to a certain extent with the gas buoys, that is to say with the flashing apparatus, and the gasworks. They overhaul the gasworks and the retorts and the compressing engines, they overhaul them.

1433. Whose duty is it to look after the buoys and beacons?—The actual maintenance of the buoys and beacons is in the hands of the masters of the steam tenders in the respective localities. They are responsible for the buoys being maintained in proper position and in efficient repair, scraped, painted, sufficiently moored, and so on; they are solely responsible in this sense, that they have to do the work, but an account is kept of how every buoy is dealt with. They are in fact buoy masters for their districts.

1434. We shall ask you to put in a statement in detail of the establishment and scale of salaries, please.—Yes, Sir

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1435. Now as to the area of administration and the seamarks within it, what is the length of the coast-line?—According to the report of the Royal Commission in 1861 the coast-line of Scotland and the Isle of Man is 4,557 miles.

Extent of Jurisdiction of Northern Lighthouse Board.

1436. A great part of that consists in sea lochs penetrating far into the interior?—Part of it, but the Engineer has made up a statement of the coast-line which the Commissioners light, or might reasonably be called upon to light, and that amounts to 2,275 miles.

1437. That is leaving out these long indentations?—That is excluding lochs and estuaries, and so on, and places like the Clyde and the Tay, which are under local authorities.

Seamarks: Number of, in Scotland.

1438. Can you give us particulars of the seamarks and signals?—On that coast-line we now have 355 general seamarks and signals, of which 163 are lighted and 37 are fog-signals. The fog-signals do not include belled and whistling buoys, of which there are seven.

1439. What is the number of lighthouses?—There are 80 lighthouses; that is, fully-equipped lighthouses. There are 27 what are called "minor" lights, which are classed as unwatched, but which are attended by local residents, who are paid a small sum a year to visit them every four days, clean the lenses and lantern panes, and so on. They are called "minor" lights to distinguish them from the lighted beacons and buoys which are unattended except by the steam tenders which supply them with gas. There is one lightship, 55 lighted and 155 unlighted beacons and buoys and 37 fog-signals.

Lighthouses: Classification of,

1440. Would you describe to us the different classes of lighthouses? You class those according to their situation, do you not?—Yes, Sir.

1441. Mainland lighthouses, rock lighthouses, and island lighthouses?—The mainland lighthouses might more appropriately be called land or shore lighthouses, because they include stations on large islands as well as the mainland.

1442. A lighthouse on the Isle of Skye would be a land lighthouse?—That would be a land lighthouse. Of land lighthouses there are 45; of rock lighthouses, where the men have to be relieved at stated intervals and their families do not live with them on the rock, there are 12; of islands which are specially attended by boat, but where the families live on the island but there are no other inhabitants, there are 21, with 23 stations.

Lightkeepers: Number of, at each station.

1443. What is the usual complement of keepers at these different classes of lighthouses?—At an ordinary light station without a fog-signal, two; with a fog-signal, three; at a rock station, as a rule, four; three on the rock and one ashore; and at an island station—well, an island station is the same as a land station as far as complement is concerned—that is, there are generally two men, and if there is a fog-signal there are three.

Relief of, at rock stations.

1444. At a rock station, how long does each keeper serve before being relieved?—As a rule, six weeks on and two weeks off. There are exceptions where the towers are so near the shore that we only have two men on and one off, in which case they are on for four weeks and off for a fortnight.

Employment of rock lightkeepers while on shore.

1445. When a man is off is he given any sort of employment?—No, nothing, Sir, as a rule, except to look after the shore station. In ordinary circumstances there is nothing else for him to do, because the situation of the store stations is so out of the way that there is no work for them. The only exception of any importance is at Granton, where the keepers from the Bass are given a certain amount of work in the store. That is the only place where we have any work for them to do. There is another small exception up at Stromness, where the keeper ashore has to go off to an unwatched light and put it right if there is anything wrong.

1446. Speaking generally, a man may dispose of his own time?—Yes, except that he must be at or near the shore station day and night; he must not leave the shore station without leave. He has to look out for signals from the rock twice daily in most cases.

Number of, at each station.

1447. The shore station is the relief cottage?—The family dwellings are on shore. We supply family dwellings in every case for rock lighthouses. With reference to island stations, I should say that in some cases there are three men instead of two. That is merely from the great isolation of some of the stations.

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At ordinary gas stations we have only one keeper. We have nine of these stations now which a few years ago were fully manned stations, with two men, but since we have used compressed oil gas we have done away with one keeper. The stations are supplied with compressed gas from the Commissioners' own gasworks by the steam tenders. The light does not need to be constantly watched at night. It burns in an incandescent mantle. In the event of anything going wrong there is an alarm which rings down to the light-keeper's room. As a matter of fact, they have not gone wrong in our experience; we have had no trouble with them at all. That has effected a saving of £100 a year at each station on an average for a capital expenditure of from £500 to £350.

Lighthouses: Number of gas stations.

1448. How many gas stations are there?—Nine. Of course, such a system is not adapted for any but, I might say, stations in narrow waters. They are mostly on the West coast. Four are at the entrance to harbours of refuge—one at Loch Indaal, in Islay, one on Holy Island, Arran, another at Loch Ryan, near Stranraer, and one at Cromarty. The Commissioners have practically exhausted all the possibilities now in that line.

Isle of May, electric station.

1449. You mentioned an electric light station?—Yes, there is one electric light and fog-signal station on the Isle of May. That needs a much bigger staff of men. There are seven men there, one of whom, however, is taken up almost entirely in looking after a horse for carting coals, water, provisions, stores, etc.; he has a special appointment. There are five regular keepers and an engineer in charge.

1450. That is the most powerful light under your control?—It is one of the most powerful lights in the world. It is infinitely the most powerful light under our control; its power is measured in millions, while that of others is measured in thousands of candles.

1451. That, of course, is worked by steam-power?—Yes, by steam-power. We have two steam engines for the electric light, and one for the fog-signal, which is a siren.

1452. That is one of the reasons why you require so many men?—Partly that and partly from the configuration of the island. The engine-houses are at some distance from the lighthouse tower. Two men take the ordinary watches in the lighthouse tower, and three men take the watches in the engine-room. During the long winter days and in fog the work is heavy, especially as steam has to be kept up day and night.

Fog-signals: Number of,

1453. How many fog-signals are under the control of the Board?—Apart from sounding buoys, 37. I may say that the numbers I am giving include works in progress; not proposed works, but works which are actually in course of execution.

1454. Works which have been sanctioned?—And are approaching completion. The fog-signals number 37, 31 of which are sirens, one is a reed, and the other five are explosive signals.

Congested Districts Boards: Lights of,

1455. You have already, I think, dealt with the question of minor lights, but I see some of these minor lights are maintained for the Congested Districts Board?—Yes, Sir. In 1891 a Highlands and Islands Commission recommended that certain lights should be provided, especially on the west coast of Scotland and Shetland. They were considered too local to be made a charge on the General Lighthouse Fund, but by arrangement the Commissioners undertook their erection and maintenance out of monies voted by Parliament.

1456. You charge cost price for them to the Congested Districts Board?—Yes; for the actual erection we charge cost price; for maintenance we charge cost price, and a sum for each light for management expenses. In 1897 the cost of maintenance was transferred to the Congested Districts Board, with whom we now deal, but in all respects we deal with these lights exactly as our own, except——

1457. (*Sir Frank Adam.*) That they cost you nothing?—They cost us nothing but time and trouble. Accounts are rendered to the Board of Trade in the ordinary way, but the Board of Trade recover the money from the Congested Districts Board.

Seamarks: Average cost of maintenance of,

1458. (*Chairman.*) Will you tell us the approximate cost of maintenance of the fog-signal stations and minor lights? We should like on this subject to get as much detail as possible.—I can put in a detailed statement, but I have made out some averages.

1459. Could you give us the averages you have made out?—They are arrived at by taking, say, five typical stations in each class and giving the average of ordinary maintenance for five years. Land stations without a fog-signal, £285; land stations with a fog-signal, about £450; an island station with a special attending boat, £310; a gas station with one man, £170; rock stations it is extremely difficult to give an average for, but taking all the rock stations in the service, and including three explosive fog-signals and five attending boats, for the whole of them the average comes out at £680. If the fog-signals and the boats are not taken into account the maintenance is about £600.

1460. Will you put in that statement and show how it is arrived at, with an enumeration of the different seamarks?—I will put in a statement. The Isle of May costs £1,130.

1461. That has to be taken by itself owing to exceptional nature of it?—Entirely alone. I may say, Sir, that the expense of maintenance generally may appear large, but the difficulties of maintenance are so great that it is not really excessive. Most of the stations are extremely remote, and I may say that out of 24 lighthouses on the mainland of Scotland—there are only 24—two are 50 miles from a railway, and others are from 25 miles to 10 miles. They are almost inaccessible, some of them, at certain times in the year.

1462. (*Sir Frank Adam.*) That is from the sea?—From the sea or land. In the case of land stations like Cape Wrath and Stoer Head the chances are you would not in winter get to the station and away from it by land within, say, a week or ten days. In the case of any breakdown or other emergency it is impossible to send any relief.

1463. (*Chairman.*) What is your system of supplying these various stations with stores?—Perhaps I might just say about the rocks, in connection with difficulties of access, that four of them are over 10 miles, one is 20 miles, and one 40 miles from the nearest land. With regard to fog-signals, the actual cost of attaching a fog-signal to an existing station, which in the ordinary case means an additional keeper and dwelling, may be put down at £160 a year, not counting interest on the first cost of the work. That is a siren signal, a first-class siren. A minor light costs annually from £25 to £40, varying with the distance that the attendant happens to be from the light. In cases where the distance is small, his pay would be £15 a year; in others, where the distance is three or four miles, £25 to £30 a year.

Attendance on minor lights.

1464. How often do these minor lights require attention?—The keeper every night at darkening has to go and observe the light from the nearest convenient point, see if it is burning, and if everything is not right he goes and makes it so. He generally visits it twice a week, but once every four days he must go according to the rules of the Service. The newer minor lights burn acetylene gas; they require less attention than others. We find no difficulty in getting an ordinary fisherman or crofter to attend to an acetylene light after two or three days' instruction. It is a much brighter light and much cleaner.

1465. Now we come to the question of stores?—Perhaps I might say a word about supervision and inspection.

Inspection Scotch Seamarks.

1466. I thought we had practically dealt with that, unless you have anything you have not already told us?—I may just add that the Engineer makes a quinquennial inspection of the lighthouses and reports on them to the Board. Of course he visits the lighthouses oftener if required. And the Superintendent, apart from the fact that he and his assistant visit every lighthouse twice in the year, makes surprise visits, especially in winter, to stations that can possibly be approached at night. With regard to stores, to take oil first, it is entirely Scotch oil that we burn. We get tenders from all the Scotch companies, which are four in number at present.

Stores: Oil.

1467. Is that out of economy or patriotism?—Out of economy in the first place; in any case, it is an oil which suits us perfectly, and as far as I know it is cheaper than any other oil. The price in the estimates just now is only 5d. a gallon, and we have paid less than that recently. We get tenders, and the companies send in samples which are tested very carefully by the district superintendents for their different constituents and burning qualities by analysis for fractional distillation, and so on. A report is made to the Finance Committee,

which reports to the Board, and it decides which offer is to be accepted, and then, as in all cases, the sanction of the Board of Trade is obtained to the acceptance.

1468. Is the oil delivered straight from the contractors to the lighthouses?—No; we order oil as it is required, it may be in consignments of from 20 to 25 thousand gallons, and the storekeeper at Granton attends at the works to see the barrels filled. He takes away a sample, which is again tested, and the oil is then delivered alongside our steamboats at Granton, Oban, or Ardrossan, wherever it may be wanted, and it is delivered by them at the stations. The oil is not only placed above high-water mark at the stations, but in almost every case is taken up and emptied into the cisterns by the seamen.

1469. It is not placed in the storehouse belonging to the Commissioners first of all and then taken from there; it is delivered by the steamboats from the contractor?—Yes. It is sometimes delivered by the steamer to a store when the station is distant, and it has to be carted, but almost invariably it is delivered by the contractor alongside our steamboats. There may be an exception when perhaps from something unforeseen—the inability of a vessel to land its cargo—the oil is sent by rail, but that is the ordinary system.

House coal.

1470. What is the method of contract for delivering house coal?—For house coal we get tenders, as we do for everything practically. The lightkeepers are allowed so much a year: of Scotch coal, principal keepers 10 tons, assistants 8 tons; English coal, 8 tons to a principal, 6 tons to an assistant. Offers for the supply of the coal are reported upon by the Finance Committee and submitted to the Board. In all cases the contract is if possible to deliver the coal at the lighthouse. In some cases it is at the nearest railway station or the nearest public landing stage.

1471. But if possible you get the coal landed by the contractors?—Yes; it sometimes has to be carted to the station by the Commissioners, and except in a few cases they have to take the coal off to islands or to the rocks in boats after it has been landed at or near the shore station by the contractor.

1472. Do you advertise for tenders?—I am not quite sure, Sir; I would not be certain whether that is one of the advertised tenders or not. In any case it is known perfectly well when we are in the market, and we never refuse a schedule to anyone who asks for it, but I am not prepared to say off hand whether we advertise or not.

General stores.

1473. Then as to the general stores?—The stores are arranged for by the superintendent and his assistant when they are at the stations. They check all stocks in hand, then compare what the light-keeper has in his requisition with what he has in hand, and with what he got last year, and after carefully adjusting details, all the requirements of the different stations are tabulated in the office, and the estimates are based on the summaries of the total quantities. They are then divided up under different heads, and offers are obtained. I may say there are about sixty different contracts in each year for different classes of store. These are all submitted to the Finance Committee and reported on, and in any case where the lowest offer is not accepted the reason of that is explained to the Board, and also to the Board of Trade in requesting their sanction. The stores are delivered very much as the oil is, entirely by the steam tenders; in fact, it is the only way possible to deliver things at most of the stations.

1474. (*Admiral Henderson.*) Do the contractors send stores to the nearest depôt?—They send them to Granton.

1475. They do not send them to a single depôt?—All stores, I mean all general stores under ordinary annual contracts, are sent to the Granton store—the distributing store at Granton. There they are examined and passed by the superintendent, and in any case where it is necessary tests are made or analyses obtained. Having been passed, they are allocated by the storekeeper to each lighthouse, they are then packed, and they are then delivered on board the steam tenders for distribution. That applies to all the stores in the service.

1476. By rail, or otherwise?—Invariably taken by steamers, but the West Coast stores are sent across country by rail and then put on board at Ardrossan or Oban.

1477. (*Chairman.*) You wish to say something as to the duty of the superintendents?—With reference to the system of effecting repairs at lighthouse stations, these are arranged for by the superintendents when at the stations, when they note all repairs that are likely to be required in the following year, and afterwards make the necessary drawings and specifications, and make the required provision in the estimates. When they are at the station again in the spring, they give the necessary instructions for these repairs being carried out. In many cases it is impossible to get artisans or tradesmen; and the light-keepers do a large proportion of the repairs. For unskilled work they are paid 3d. an hour, and for skilled work 4d.

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Repairs: System of executing.

1478. In addition to their usual pay?—In addition to their usual pay. That does not include, I may say, painting; all painting inside and outside, all ordinary painting is done by the light-keepers without extra pay, except limewashing, for which they get a small allowance at each station, depending on the extent of the work. It may be of interest to say that in 1906-7, apart from lime washing, the sum entered in the estimates for ordinary repairs was about £1,500, and that covered all the ordinary repairs and upkeep of over 200 dwelling-houses, 80 towers, 26 engine houses, 10 minor lighthouses, besides offices, oil cellars, boat houses, etc., 50 miles of road, many miles of wall and fences, and over 50 slips and boat landings. Machinery and apparatus are not included.

1479. Was the sum expended in that year exceptionally low?—No, Sir, that is just an ordinary average; in fact, the ordinary repairs are kept as much as possible at the same figure. When they are all priced out, and they are found to be in excess, they are gone carefully over, and, if possible, reduced; so that every year they are kept as nearly as possible at the same figure. That does not include, of course, special repairs such as extensive additions or improvements—for instance, building additional houses.

1480. Or an additional room to a cottage?—Or converting two houses into one; no, these would be called special repairs. In fact, any addition or improvement—not ordinary upkeep—say, over £30 is generally treated as a special repair; but a great many of the special repairs are really improvements, which as a matter of fact repay themselves in a short time owing to reduced expenditure on maintenance. Additional houses, and important special repairs on existing buildings, are as a rule arranged for by the Engineer, and carried out by him. With reference to repairs on machinery; as I said, the district superintendents arrange for all that.

Special repairs.

1481. I think you have told us of that already?—Yes, Sir, except for special repairs. Any important additions to or alterations of the machinery and lighting apparatus, and so on, are arranged for by the Engineer—that is to say, no alteration of importance is made with the Engineer. The work is generally carried out by the district superintendents and their mechanics.

1482. If the district superintendents considered that a repair of that magnitude was desirable, they would report to the Engineer or to you?—They would formally report to the Secretary in the first place; but the Commissioners decided whether these special repairs are to be carried out or not, on the advice of the Engineer.

Lightkeepers: Admission of,

1483. Now, as to light-keepers, how are they selected and appointed?—There are 204 of them. They have almost all been mechanics or tradesmen or sailors. When they apply to get into the service they are given printed questions to answer, and after having been interviewed by the Secretary or the superintendents, and found to be apparently suitable, they are put on a list which is called the candidates' list. Once a year, as a rule, we call up a certain number for examination in Edinburgh—an examination in general knowledge, which is not very stringent, and a very stringent examination by the Commissioners' medical officer. If they pass these examinations, they are sent away for training for three months each—probably about 15 or 20 of them—for six weeks at each of two stations, when they are boarded and lodged, but get no pay. If they are favourably reported on by the principal keepers at these stations they are put on the Expectants' list, and they then await their turn for appointment. But in the meantime they get no pay or allowance of any kind, and they may wait for two years; in fact, they generally wait for 18 months or two years. They go back to their trades. When vacancies

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occur they receive their appointments and they are insured.

1484. Is the post much sought after?—Yes, there are at the present moment, about 100 names on the candidates' list, and 14 on the expectants' list. No candidates have been examined this year; we do not need them; but we have 100 waiting.

Payment of,

1485. What sort of pay do the lighthouse keepers receive?—It is exactly the same scale in the three Lighthouse Services. I have the rates of pay here; I can put in a statement of the pay and allowances.

1486. I think it just as well they should be put in, but perhaps you might give us a short oral statement as well?—The scale is contained in the Instructions to Light-keepers, page 42. On appointment, assistant keepers get 3s. a day, that is to say, £54 15s. per annum; after five years' service, 3s. 2d. per day, that is £57 15s. 10d. per annum; after 10 years' service 3s. 4d. per day, that is, £60 16s. 8d. per annum, and after 15 years' service 3s. 6d. per day, or £63 17s. 6d. per annum. The principal light-keepers, on appointment—that is after promotion from assistant light-keeper—3s. 9d. per day, that is, £68 8s. 9d. per annum; after five years' service, 3s. 11d. per day, that is £71 9s. 7d. per annum, and after 10 years' service, 4s. 2d. per day, or £76 0s. 10d. per annum. There is a rather cryptic observation at the end, "From these rates a deduction, at the rate of 6½d. per day (equal to £9 17s. 8d. per annum), will be made in respect of land, which will be settled with the usual adjustments at Whitsunday annually." Originally, there was a certain amount of land attached to each light-house station, not only gardens, but agricultural ground, and that was valued at £10 for each station. At stations where there is no such ground, or if it is of little value, the men get money, and, as matter of fact, there is no station in the service now where the whole sum of £10 is charged to the keepers for land. It is not worth it; the rent varies from £5 down to £2.

1487. That is taken into consideration?—That is taken into consideration, and the pay adjusted accordingly.

1488. What allowances are made in addition to wages?—At fog-signal stations assistants get 2d. per day, equal to £3 0s. 10d. per annum.

1489. That is extra pay?—Yes. Principals get 3d. per day, that is, £4 11s. 3d. per annum. At gas or electric stations the assistants get 4d. per day, and the principals get 5d. per day, that is £6 1s. 8d and £7 12s. 1d. per annum respectively. At explosive fog-signal stations each keeper gets 1d. per hour while the signal is actually sounding, that is to say, each keeper actually at the station.

1490. A record of that is kept?—Yes, Sir.

1491. (*Sir Frank Adam.*) By whom?—By the light keepers. But we can tell from the consumption of explosives exactly how long they have been sounding. The principal keepers at rock stations receive £7 10s., and assistant keepers £5 per annum. Then there are special allowances at certain stations.

1492. (*Chairman.*) As you are going to put in a detailed statement, it is perhaps hardly necessary to go all through that. But, broadly speaking, in addition to the pay which you have now described, are there any considerable allowances?—Well, there are special

Allowances of,

allowances at four exceptionally isolated stations, there is £3 for garden, or, rather, in lieu of garden, where there is none at a station; £3 annually for insurance and then the keepers on rocks are rationed by the Commissioners in addition to their pay.

1493. What does that cover; does that cover their entire maintenance?—Everything, Sir, at 1s. 9d. per day. We do not give them the money; we give everything in kind throughout the service. We do that both on the steamers and on the rocks, because the Commissioners' experience is that they can get infinitely better food for the keepers and crews than the keepers and crews can for themselves.

1494. At those out of the way stations?—Yes, and they are also apt to stint themselves for the sake of their families.

1495. (*Admiral Henderson.*) You pay them 1s. 9d. a day?—No, we give it in kind; on the steamers 6d. of it is in money.

Superannuation of,

1496. (*Chairman.*) Are they pensioned after a certain number of years' service?—Yes, Sir, at 60 any keeper may retire; at 65 he must retire, and they are pensioned at the Civil Service scale under the Superannuation Acts. They may retire earlier on a doctor's certificate, in which case they get a commuted pension.

1497. As to efficiency and discipline, have you any observations to make?—Well, Sir, the discipline in the service is extremely good. There is seldom complaint of any kind, drunkenness, for instance, being practically unknown; at any rate, for many years. I may say in the six years I have been in the service there have only been two reports of a revolving light being stationary or of an extinguished or impaired light. The stationary light was reported by a Commissioner who happened to be passing at night, and inquiry proved that the keeper on watch was not to blame; and the impaired light was reported by the principal light-keeper. Take it all over, I can safely say the discipline is as high as it possibly can be.

High standard of discipline among,

1498. Have you a class of occasional light-keepers?—Yes, Sir, at practically every station in the Service there is an occasional light-keeper, who is one of the inhabitants of the district. He is trained in light-room duty; and in cases of emergency, holidays, and so on, he is called in to do duty. These men are paid from 3s. to 5s. a day—3s. 6d. is a fair average—with their board and lodging.

Occasional light-keepers.

1499. When they are actually employed?—When they are actually employed; they get nothing when they are not actually employed, but they are guaranteed twenty days' employment in the year. As matter of fact, it is the only way to maintain a great many of the lighthouses in emergencies, because they are, as I have said, almost inaccessible at certain seasons.

1500. Do you know if that system is followed by the other Lighthouse Authorities?—I think it is in the Irish, but not in the English service. I understand the Trinity House have supernumeraries that they send from headquarters. Whenever an occasional keeper has to be called in, it is at once reported to headquarters with the reason.

1501. I think you have already spoken on the subject of the attendants on minor lights, have you not?—Yes, Sir.

1502. What have you to say about attending boats?—There are 33 stations which are regularly attended either by the Commissioners' steam tenders or by special boats. Twelve of these are rocks and 21 are island. They relieve the keepers, deliver mails, provisions, coal and water. A great many of our stations have to have water carried to them; all the Firth of Forth stations, for instance. Even on the Isle of May, a large island, they have no drinkable water; that has all to be conveyed to them, sufficient for six or seven families.

Boats: Employed by Northern Lighthouse Board.

1503. Is there no water on the Bass?—No drinkable water. We were warned against it. As a matter of fact, the contractor's men who were there for nearly three years drank it and suffered not at all, but a bacteriological examination disclosed facts which rendered it necessary for the lightkeepers to avoid it, except for cleaning purposes. Then tenders attend 13 of these stations, boats 21, two of them being attended by both tender and boat. Only seven of the boatmen are covenanted servants of the Commissioners, wear uniform, and are entitled to superannuation. Seven of the others are paid a salary, and the boats belong to the Commissioners. In eight cases neither the men nor the boats belong to the service of the Commissioners.

1504. Have you a general arrangement with those boats?—Yes, Sir, we pay a stated rate per trip in one or two cases; in all other cases a salary, fixed according to the circumstances of each station.

1505. You have only one lightship, I think?—Yes, we have only one lightship, which is moored off the East Neuk of Fife, in the Firth of Forth, about 7 miles from the Isle of May. She was established in 1887.

Lightvessel:

1506. What is the complement of officers and crew?—All told there are two officers and nine of a crew; one officer and six men being on board at a time, and one officer and three men on shore.

Crew of,

1507. Do they have any duties while on shore?—Yes, Sir, they work in the buoy yard at Granton.

1508. That is the case you mentioned before?—Yes, at the chipping and painting of buoys, preparing moorings, etc.

1509. What is the approximate cost of the maintenance of this lightship?—For the last seven years the cost of maintenance including one overhaul—she is brought in every seven years for overhaul—has been £1,410.

Cost of maintenance of,

1510. (*Sir Frank Adam.*) Altogether?—Annually.

1511. Annually?—Without that overhaul it is £1,277.

1512. (*Chairman.*) Have you a reserve lightship?—No, Sir, we have not.

1513. What do you do?—When she was first laid down it was thought necessary to tow a lightship from the Thames to take her place when she was brought in, but now we hire a trawler; we equip her with a light—it is a fixed light, so that there is no difficulty about that—and with a fog-signal as nearly as possible the same as the signal on board. As it is in the summer months she is quite able to ride at the station.

1514. You have found that sufficient provision?—Quite, sir. There have been no complaints of any kind; it only happens once in seven years for a short time. The overhaul is carried out under the supervision of the Board of Trade officer for the East Coast of Scotland. Nothing is done which is not authorised by him.

Buoys and Beacons: Number of, in Scotland.

1515. I think you have already dealt with buoys and beacons; is there anything additional that you wish to say on that subject?—Well, Sir, perhaps I might give the number of lighted buoys and beacons; the gas service has extended greatly within the last few years.

1516. We shall ask for a statement of that in detail; perhaps you might also give it us?—There are 210 buoys and beacons in the service now, 78 beacons and 132 buoys. Of the beacons there are 23 lighted, and of the buoys there are 32 lighted, and I may say included among these buoys are the unmanned gas-light vessels to which I referred before. As regards the position of the buoys, when they are laid down for the first time the Board is advised by their Engineer, who takes the advice, if necessary, of the officers of the steam tenders in the locality, and also of masters of vessels navigating the locality. The responsibility for maintaining them in position is, as I have said, on the masters of the steam tenders, and their crews attend to them in the way of scraping and painting and overhauling, and so on.

Maintenance of,

Cost of,

1517. Have you made out the average cost of each buoy and beacon?—I could hardly do that; I could give the average cost of the lighted buoys and beacons, but further comparison is impracticable, because they vary from 10ft. steel buoys down to 5ft. or 6ft. wooden buoys.

Gas: Extent of employment of,

1518. But as to the cost of the gas?—Gassing has now become a very large business. Next year we expect to make nearly 700,000 cubic feet of gas, and that will be priced in the estimates at about 15s. 6d. per thousand cubic feet. That includes everything to do with the gasworks, the salaries, repairs, coke, oil, rent, and so on. The gas is made at three gasworks belonging to the Commissioners, one at Granton, one at Stromness in Orkney, and the other at Oban; and it is delivered to the different seamarks by three of the steam tenders which are equipped for the purpose, one in the Forth, one at Orkney, and one at Oban.

1519. Are the gas men servants of the Board?—Yes, Sir, they are permanent servants. They wear uniform, and they are entitled to superannuation. There are two regular gas men, one at Granton and one at Oban, and they are paid thirty shillings a week, with uniform and a right to superannuation. The gas maker at Stromness is also keeper of the store and pier there, and his wages are not allocated as far as the gas is concerned. He is paid £72 a year, with uniform and a house.

Steamvessels: Description of.

1520. Then I think we come to the steam tenders. Will you give us the number and description of those?—There are four steam tenders in the service now—two stationed at Granton, one at Stromness, and one at Oban. The two at Granton are the "Pharos," which was built in 1874; she is a paddle boat, 524 gross tonnage, 241 tons net, and 1,200 indicated horse power; and the "May," built in 1899; she is 242 gross tonnage, 70 tons net, and 500 indicated horse power; she is equipped and used almost entirely for gassing. The "Pole Star" is a twin screw, built in 1892, 460 gross tonnage, 197 tons net, and 1,150 horse power; and the "Hesperus" is a twin screw, built in 1896, 583 gross tonnage, 189 tons net, and 1,100 indicated horse power.

1521. Which of these vessels is used by the Committee of Inspection?—The "Pharos," Sir; she is the only one that has any considerable accommodation. She has seven cabins.

1522. Can you let the Commission see the logs of these steamers with particulars of cargoes as far as possible for a given period, say from the 1st January to 1st October of this year?—Yes, Sir.

1523. The original log will do; it need not be copied out.—The logs are copied and sent to the office.

1524. Then if you will send a copy of it that will be sufficient. It is suggested that you should put in a statement of the complements, ratings, and pay; that I think we might have?—Yes, Sir. May I just be allowed to say, as far as the overhaul of the steam tenders is concerned, that also is done entirely under the superintendence of the Board of Trade. A specification is prepared by the Superintendent, along with the officers, and that is submitted to the Board of Trade Surveyor for the East coast or the West coast of Scotland, as the case may be, and he decides finally what is, and what is not, to be done, and no addition is made to the work without his written order after that specification is once adjusted.

Storehouses: Granton.

1525. Now we come to the question of store houses. You have a distributing store for the whole service at Granton?—Yes, Sir, the stores are all sent there, except oil and, of course, coal; they are all packed and distributed.

1526. Are oil and coal as far as possible sent straight to their destination?—Not oil; the oil is sent straight to the steamers.

1527. Exactly, and the coal to its destination?—It is purely a distributing store at Granton; there are no large stocks kept of any kind. There is a small stock of paints, wicks, lamp glasses, and things of that kind, but we do not keep any large stocks.

1528. What does the staff consist of?—The staff consists of one store-keeper, two assistants, and a boy clerk. The store-keeper is paid £110, rising by £5 to £125 a year, with a house. At present one of the assistants receives £90 and the other £78 per annum; in future appointments the pay in both cases will be 25s. a week, rising by a shilling a week to 30s. a week. I may say that these assistants are also trained lighthouse keepers, and do occasional work for some of the stations in the Firth of Forth. One of them is also a trained gas maker, and can undertake the work in Granton gas works.

1529. For this purpose they may be regarded as emergency men?—They are, so far as lighthouses and gas-making are concerned.

1530. Will you give us the approximate cost of the Granton distributing store for this year?—For this year, £758. That includes £150 for rent of the store and about £160 for freight and carriage, and so on, which is really apart from the store.

1531. This store includes buoy yard?—Yes, buoy yard, but no coal store. The coals at Granton are brought alongside straight from the pit.

1532. Ship's stores are also provided from the distributing store?—Yes, Sir.

Stromness and Oban.

1533. At Stromness you have another store, and at Oban?—Really a steamer depôt at Stromness. There are a pier and a buoy store, and a coal store, and a ship's store, and a gaswork at Stromness. But there again there are no stores kept except ship's stores for the year, and a reserve of coal. At Oban the pier and stores are under construction. They are not in working order yet.

1534. Was Stromness chosen for the convenience of situations?—Yes. The "Pole Star" has to relieve, for instance, the Sule Skerry Rock, which is 40 miles due west of Orkney. That is one of her chief duties in winter; and in various other ways Stromness is much the most suitable place for the northern work of the service.

1535. The storehouse at Oban is still under construction?—Yes, Sir.

1536. That was sanctioned a few years ago?—Yes, three years I think.

1537. I think there only remains the question of the supervision of local authorities; you have dealt with all the other subjects?—The Head Office was not included in the establishment; do you wish that included?

Head Office Establishment.

1538. Oh, yes, I should like to have that put in. It is a separate abstract in the estimates. The building belongs to the Commissioners. There is only one house officer, and no messenger. The house officer does all the work and acts as messenger.

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1539. That might be included in the statement of salaries?—Yes, Sir. As far as the supervision of local authorities is concerned, I think I have said practically all there is to be said. When any authority desires either to establish a new light, or alter an existing one, they apply to the Commissioners for sanction. That is invariably brought before the Board, and, if necessary, remitted to the Engineer for report. A decision is then come to by the Board.

Local lights: Control of Northern Lighthouse Board over,

1540. You have nothing to add to what you have already told us?—I think not, Sir.

1541. (*Colonel Herbert.*) With regard to that particular question of local lights, I think I would like to ask a question with reference to this letter which came to us. (*Letter shown to Witness.*) The Commissioners have control over local lights, I understand?—Yes, Sir.

1542. The cost of the general lights, I understand, would be on the General Lighthouse Fund, and of the local lights, how would that be?—The Commissioners are not concerned at all with the cost of the local lights; the funds are local funds.

1543. I understood you to say that in some cases they are not actually under local bodies; in some cases the lights are under local bodies, and are established by local bodies; in other cases it rests with you to establish them. Then I suppose you would have to make provision for them?—What we call purely local lights have never been established by the Commissioners at the cost of the General Lighthouse Fund. There are certain lights erected and maintained by the Commissioners out of money supplied by the Scottish Congested Districts Board.

1544. Perhaps you might look at that (*showing letter to Witness*)? A case of that kind, where a grievance is felt with regard to the necessity for a local light, how would that be dealt with?—I know about this case; this came before the Board. The Commissioners decided that it was too local for them to undertake. It was pressed upon the Commissioners on account of its being useful as a harbour of refuge, but they came to the conclusion that the loch was not really suitable for a general harbour of refuge. That is the only case in which they can depart from their rule as to local lights, they will light the access to harbours of refuge. This was not a suitable harbour of refuge, and was not required. This is exactly the kind of case where the Congested Districts Board has stepped forward, and has supplied the funds.

1545. I see. Then a case of that sort, as I understand, is one purely for fishermen?—Entirely, I think.

Provision of, out of General Lighthouse Fund.

1546. You would not consider that that would come within your service?—The Commissioners have rather been driven to decide that seamarks purely for the convenience and safety of the fisheries are not within their province, because fishing boats pay no light dues, although the preamble of the 1786 Act which constituted the Commissioners, actually bore that it was for safeguarding navigation and the fisheries.

1547. With regard to that question of the interests involved, which is the fishing interest, I notice there is no representation of interests on your Board?—No direct representation, but the Sheriff of Aberdeen is a member of the Fishery Board for Scotland.

1548. You told the Chairman it was a local representation rather than a representation of interests?—I did not intend to express a definite opinion as to what it was; it is a question I should prefer you to ask the Commissioners, if possible. I did not mean to say it was a local repesentation.

1549. Has it ever been considered whether it would be desirable to have a representation of the shipping interests, and possibly of the fishing interests, on the Board?—Not formally, as far as I know, but certainly they have considered the advantages of having direct representation.

1550. And they have never come to any decision on that?—I think rather that the feeling is that it is impossible to have such direct representation as will safeguard the interests of everyone.

Northern Lighthouse Board: Responsibility of Secretary.

1551. Then, with regard to the functions of the different officers, I gather that practically all the administrative functions are centred in the Secretary?—I would hardly say that.

1552. Is not that so?—No, Sir, I think they are centred in the Board really.

1553. The Board is responsible?—Through the Secretary. It is marked what close attention the Commissioners devote to the work, and the interest they have in it, and the knowledge of its details. I will not say of them all, but there has been a continuity of Commissioners with great knowledge and keen interest in the work of the service, and they really do the administrative work.

1554. From what you said I gathered that the Secretary is practically a sort of inspector-general. He is responsible also for estimates, discipline, for the work of the steamers; all those different threads of administration go through his hands?—That is so, the threads certainly do. I should hardly like to say that the Secretary is entirely responsible for the steamers, or for the accounts and estimates, but he must take measures to see that the work of every department is properly performed.

1555. But all the threads go through your hands?—They do.

1556. I am not criticising, but what would happen supposing anything happened to the Secretary: Is there anyone who could take his place in an emergency?—At the present moment there certainly is, and I think, always would be.

1557. Who would that be?—The Superintendent, for instance, who acts for the Secretary in his absence. The Superintendent is perfectly qualified; in fact, in some ways much better qualified than I am, to see that the departments of the service are properly administered, as far as general management is concerned.

1558. But then he has not also got the special qualifications you have with regard to legal matters?—That is so. I take it that in no public department can a head permanent official go without being missed for a few days, but I have no doubt my place would very soon be filled, as it has been before. As far as the purely practical work of the service is concerned, that certainly could be carried on.

Constitution of,

1559. (*Mr. Ennis.*) The constitution of the Northern Lights differs very considerably in many respects from the constitution of the Elder Brethren of the Trinity House on the one hand, and the Irish Lights Commissioners on the other?—Yes, Sir.

1560. Your entire body, as far as I could gather from the evidence you have given us, consists of *ex-officio* members?—Entirely.

1561. Members who hold office as Commissioners of Northern Lights by reason of their holding office in some other capacity?—That is so.

Tenure of office of members.

1562. Can you give any information as to the general tenure of office of these various offices which carry with it membership of the Commissioners of the Northern Lights? For example, the Lord Advocate, the Solicitor-General for Scotland, I assume are political appointments which change with the Government; is that not so?—That is so, Sir.

1563. The Lord Provost of Edinburgh, the Lord Provost of Glasgow, the Lord Provost of Aberdeen, the Provosts of the Burghs?—They are all appointed for three years; they may be re-elected. For instance, the Provost of Leith, at the present time, is serving his third term. I think he has been on the Board for over seven years now.

1564. But, in any case, they are liable to change every three years?—That is so.

1565. Therefore, so far as the Lord Advocate and the Solicitor-General go, their tenure of office as Commissioners of Lights would terminate with the fall of the Government to which they belonged, and the provosts may terminate at the end of three years, or may be re-elected to the office they hold?—Yes.

1566. Well, now, with regard to bailies and sheriffs, and sheriffs-depute, who are a large number of members on the Board; how long does their term of office extend to?—Well, the bailies for one year; it may be repeated; it has on occasion been repeated, but not often.

1567. And the sheriffs?—The sheriffs for life, or until they resign or are promoted to the Bench in the Court of Session.

1568. Well, then, with regard to those members of the Northern Lights who are sheriff-depute of various parts of the country, they are practically members of the Northern Lights for life, except those that may be promoted to the Bench?—Yes, that is so.

1569. Well, how many of those, what may be called life-members, have you got?—Thirteen.

1570. And does that explain the reason why I notice here in your evidence also that your power as to the apointment of sheriffs has been exhausted; I think you made that statement?—Yes.

1571. That is that you have appointed all the sheriffs that it is possible to appoint?—Yes.

1572. The sheriffs must be sheriffs of maritime counties?—Yes, there is one debateable case; the Sheriff of Stirling might perhaps still be appointed. The Sheriff of Perth is the only one remaining.

1573. Practically, you have appointed all the sheriffs it is possible to appoint, but you have not by any means exhausted the provosts or chief magistrates?—No, Sir. I have not examined into it myself, but I believe there are about forty still.

1574. Do you believe the reason for the selection of the sheriff-depute, instead of provost or bailie, to have been chiefly that he would hold office longer, and be more a life-member of the Board. Is that the view that led to the appointment of sheriffs?—I do not know that the question of appointing the provosts of those Burghs has ever been considered.

1575. Because it has been put to you before that there are various interests affected by the question of lights on the coasts, and the larger towns and cities I assume would have a larger shipping community and maritime population than the counties?—Every large shipping town of the country, in fact every town with a port at all, is represented on the Board. The Royal and Parliamentary Burghs of which I spoke are small, and in many respects insignificant places; insignificant, that is, as far as the interests of general navigation are concerned.

1576. You consider that in the appointment of members of the Northern Lights Board the principle has been recognised that it is desirable that there should be a representation of large harbours and maritime towns on the Board?—That principle has been recognised. Since 1854 the Lord Provost of Dundee, the Provost of Greenock, and the Provost of Leith, have all been added as these places became more important.

1577. How is the appointment of sheriff-depute of a county in Scotland made; is it a Crown appointment?—It is a Crown appointment, not necessarily a political appointment, but a Crown appointment.

1578. In the same way I take it that the Lieutenant of a County is appointed in Ireland; you have no knowledge of that, but our Chairman would probably know?—A sheriff and his substitute combine the province of six or eight officials in England—High Sheriff, Recorder, County Court Judge, Coroner, Revising Barrister, etc.

1579. (*Sir Frank Adam.*) Everything but the High Court?—Very nearly. There are about 120 different Acts of Parliament dealing with the duties of Sheriffs.

1580. (*Mr. Ennis.*) As a matter of practice you have of your 25 Commissioners about 13 who are Commissioners for extended periods, and the remainder are what I may call a floating body, who change very frequently, the personnel of which changes very frequently?—Generally speaking, that is the case.

Attendance of members.

1581. You have promised to give us a return of the attendances of the various members of the Northern Lights?—Yes, Sir. May I ask, do you wish the personal attendances?

1582. (*Chairman.*) Oh, I think we ought to have the personal attendances as well?—Yes.

1583. (*Mr. Ennis.*) And I take it that as in other Boards also, you find in practice a few members of your body who are very energetic and active, and a large number who are not so?—Like every ex-officio unremunerated Board, that is so.

1584. Now, you have spoken of the Clyde lighthouses being governed by a special trust?—Yes, Sir.

Local Lighthouse Authorities: Clyde Authorities.

1585. Where do we obtain particulars of that special trust? Does that still hold good, or is the Clyde Trust one of the Acts that were repealed by the Merchant Shipping Act, 1854?—No, there are two lighting bodies in the Clyde; one is the Clyde Navigation Trust, which extends from Glasgow down to about Port Glasgow, and the other is the Clyde Lighthouses Trust, which administers the Firth of Clyde down to a line drawn across the Cumbraes. I may say Mr. Stevenson, our Engineer, is also their Engineer.

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1586. As the General Lighthouse Authority for Scotland you claim and exercise authority over all local Lighthouse Authorities, including the Clyde?—Yes, Sir.

1587. And, therefore, although the General Lighthouse Fund does not contribute to the upkeep of the lighthouses in the Clyde, still you regard it as incumbent on you, as a General Lighthouse Authority, to see that the lighting of the Clyde, a waterway of such importance to shipping, is thoroughly efficient. I mean, you consider that the onus devolves upon the Northern Lights to see that the lights erected in the Clyde by the local authority are sufficient and suitable for the purpose?—Yes, that is a duty imposed on the Commissioners by statute.

Control of Northern Lighthouse Board over.

1588. And that is a duty you carry out?—That is a duty we carry out; not only in the case of important bodies, but in the case of every local body.

1589. I instance the Clyde because it is such an important local authority, that any dereliction of duty on the part of the local authority, or on the part of the supervising authority, might lead to great disaster?—It might.

1590. (*Chairman.*) You do not regard it as your duty to make suggestions to these local Lighthouse Authorities?—Not as a rule, unless they come to us with a suggestion. If they do that, and we do not approve of it, we make a suggestion.

1591. (*Sir Frank Adam.*) A counter suggestion?—A counter suggestion—in fact, apart from financial questions, we really are in the same position towards them as the Trinity House and the Board of Trade are towards us.

1592. (*Mr. Ennis.*) Assuming that members of the shipping community felt aggrieved by the action of the Clyde authority—I am taking the Clyde as illustrating the general principle all round your coasts—assuming that shipowners felt aggrieved by the want of what they considered efficient lighting on the Clyde, and they applied to you without any application from the local authority, you, I assume, would take action?—We would.

1593. That is to say, if you considered the application proper you would take action to compel the local authority to provide efficient lighting?—If it were within the scope of the Acts, and we had the authority of the Board of Trade. We cannot compel a local authority to do anything without getting the authority of the Board of Trade.

1594. If the local authority will not do it, you go to the Trinity House?—The Trinity House have nothing to do with local lights in Scotland; we go direct to the Board of Trade. If the local authority refused to do what we wanted them to do, we would go to the Board of Trade and get authority to compel them to do it.

1595. Then the interests of the maritime trade and the shipping community of the country are safeguarded by the fact that if they find the local authorities are unwilling to carry out what they consider reasonable lighting arrangements, they can apply to your Board, and your Board take the matter in hand if they consider it reasonable?—If it is a matter within the statutes; the statutes are not quite general.

Trinity House Control over Northern Lighthouse Board.

1596. You have given us in detail the power exercised over the Northern Lights by the Trinity House and by the Board of Trade; do you find in practice the power exercised by the Trinity House in the first instance as distinct from the Board of Trade to be irksome or difficult for your Board. Have you in practice found it difficult to get schemes that you proposed carried through by reason of opposition on the part of the Trinity House?—These questions are more perhaps for the Commissioners than for me, but very generally I can say that on occasion, I do not say it has been found irksome, but there has been strong opposition.

1597. Perhaps I should not use the word "irksome"; it was rather with reference to a previous answer that you made that I put the question. I mean you have found difficulty in carrying some of your schemes through by reason of objections raised by the Trinity House?—Yes; frequent difficulty.

1598. In the cases where objections have been raised by the Trinity House to your carrying into effect work that your Board considered desirable and judicious, to your knowledge have the Trinity House had inspections carried out by their own officials before refusing

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your application?—Not in my time certainly. I know from the records of the service that in past times they certainly did in some cases.

1599. But so far as your knowledge goes have the refusals been made without previous inspection by the Trinity House experts?—Without previous inspection for the special purpose, but no doubt from their general knowledge of the coast and the circumstances.

1600. (*Colonel Herbert.*) Would it be going too far to say that Trinity House opinion generally has been in conflict with the Northern Lights Board?—I think that would be going too far. We have really not much difficulty on the whole with the Trinity House, although we do not see eye to eye with them on various occasions.

1601. (*Sir Frank Adam.*) Although they have not inspected where they have refused sanction they have had charts before them?—Oh, undoubtedly. I have no doubt they really had, or thought they had, all the information which was necessary, although, of course, we did not know what information they went on.

1602. (*Chairman.*) You always submit your case to them?—Always, with reasons, and if they want any information they get it.

1603. (*Mr. Ennis.*) Although that is so, and although you consider they may have had sufficient information, in a number of cases you have told us the Board of Trade on being applied to, reversed the decision of the Trinity House, and granted the Northern Lights Commissioners' requests?—Yes; that is so.

1604. Has the general effect been that works that you desired to carry out are delayed on account of the general arrangement that you must first apply to the Trinity House, and then go to the Board of Trade, and then obtain financial sanction of the Board of Trade subsequently?—No, I do not think so lately; I do not think it has affected it.

1605. You do not think it has caused unnecessary delay?—Not in recent years; I am not speaking of times past, but our proposals now have to come before the Board of Trade in the autumn, and their sanction is either granted or withheld in the spring or early summer following, and that is quite independent of whether the Trinity House have approved or have not approved, although I have no doubt the Board of Trade have had more difficulty with the cases in which the Trinity House do not approve; that might be.

1606. I notice in this pamphlet which you have handed in with your evidence a statement that the coast-line of Scotland is practically double that of England?—Yes, so I believe.

1607. Is it not a fact, or am I right in assuming that the lighting, especially of the East Coast of Scotland, is less—the number of lighthouses and lightships—than on a similar length of coast in England or Ireland?—Certainly, in England, but I cannot say for Ireland.

1608. But certainly in England?—Certainly in England.

Expenditure on New Works: Amount of, desirable annually.

1609. You have also spoken of your estimates, and of endeavouring to get work done, holding them over for some time. Is your annual expenditure limited? Is there a limit placed to the expenditure that you must incur in any one year?—No, Sir, not definitely.

1610. Why then do you find a difficulty in getting the work that you may consider to be desirable and essential in the interests of human life, and the shipping trade, and all that? Why is it that you find a difficulty in getting the work sanctioned in your finance estimates for three or four years perhaps?—There is what I may call an unwritten law, although it was recognised by a Departmental Committee on the subject of the Mercantile Marine Fund, that not more than a certain amount should be expended on new works in any given year.

1611. Can you give us that amount? I mean what has been the general principle?—It is a principle in which the Commissioners have never acquiesced at all, and they, as matter of fact, put forward what they think necessary.

1612. But can you give us an approximate idea as to what this unwritten figure has been?—I think it was £50,000 a year for the whole three services.

1613. Of which Scotland, of course, was not supposed to receive a full third?—Well, Scotland should have received a full half if we are to judge by the extent to which her coast is lighted, compared with the others.

Defects in lighting of Scottish coast.

1614. Is it not a fact that the coast of Scotland taken as a whole is not so well lit in proportion to the extent of the coast-line as England is?—It is not; there are far more dark blanks on the coast of Scotland.

1615. (*Sir Frank Adam.*) Is that taking Scotland as a whole, or a particular part of Scotland?—That is taking, I should say, Scotland as a whole.

1616. North and south of the Clyde and Forth?—For instance, there are dark blanks up the East Coast. There is a very serious dark blank on the North Coast; there are many dark blanks on the outer islands on the west, and also down the West Coast, but it is better lighted when you come to the Clyde and go south. There are also numerous unmarked outlying dangers.

1617. (*Chairman.*) Immense improvements have been effected of late years in the lighting of the Scottish coast, have there not?—Yes; for instance, there are 80 fully equipped lighthouses now, and 25 years ago there were only 60. As I have said, there are now 100 lights belonging to the Commissioners—general lights—more than there were 25 years ago.

1618. (*Admiral Henderson.*) Is the actual sea-going trade in some of these dark blanks sufficient to warrant additional lights?—The north-about trade now is becoming very great, and there is a large and increasing traffic coming up the Inner Sound on the west of Scotland, and up the Minch between Skye and the outer islands.

1619. (*Sir Frank Adam.*) Roughly, can you say how many lighthouses, if you had a free hand, your Commissioners think are wanted at the present moment on the Scotch coast?—I should not like to say offhand, but a great many lights and signals, although not very many fully-equipped lighthouses.

1620. (*Mr. Ennis.*) But still your Commissioners, if they had a free hand as regards finance and matters of procedure, would undoubtedly fill these dark blanks?—They would undoubtedly; and they have been trying for some years to fill some of them without success.

1621. Is it your Engineer who is your expert officer with regard to the lights, I mean as to the quality of the lights and all that kind of thing?—Yes.

1622. I understand you join in the inspections of the Committee round the coast?—Yes.

1623. Have you ever taken any steps to inspect the Norwegian coast opposite you?—Not in my time.

Linberg Light: Tried in Scotland.

1624. The class of light that the Norwegians try?—We have tried the same class of light.

1625. You have made yourselves acquainted with the class of light the Norwegians use?—Our Engineer is perfectly conversant with the details, and at the request of some shipowners or shipmasters the Commissioners did try a Linberg light in the Pentland Firth. It was quite unsuited for the locality, and had to be replaced by a first-class lighthouse and fog-signal. A great many of these minor lights that I spoke of are really very like the Norwegian lights, only they cost more in the first place.

Minor lights: Cost of,

1626. (*Sir Frank Adam.*) They do?—The minor lights cost between £450 and £600 each.

Difficulties as to jurisdiction of General and Local Authorities.

1627. (*Mr. Ennis.*) You have a certain number of local authorities controlling lights, and these local authorities bear the expenditure very properly, and control the lights, we will say, in different harbours, but there are outside approaches—what may be called outside approaches to those harbours—a kind of territory which at other parts of the coast there seems difficulty in determining whether the General Authority or the local authority should be responsible for them. Have you found anything of that kind in practice in Scotland?—Yes, Sir, we have.

1628. Really it seems, I will not say no-man's land, but a no-man's sea, in which the General Lighthouse Authority is not willing to erect lights, and yet for the carrying into harbours, in a continuous and proper method, a light is needed between the lights erected by your authority and the lights erected by the local authority. I mean that an in-bound ship to some of these ports having taken her departure from your outer light, the light erected by the General Authority, may possibly not be able to make the light of the Harbour Authority without some intervening light or warning or signal of some kind to guide her?—That is exactly the case of the majority of the minor lights which have been erected by the Commissioners out of public funds

and which are now maintained by the Congested Districts Board of Scotland.

1629. By the Congested Districts Board of Scotland?—Or rather maintained out of funds supplied by them; we maintain them.

1630. From what source does the Congested Districts Board of Scotland derive their funds?—A vote in Parliament.

1631. But you have recognised that difficulty, that there is frequent difficulty?—Oh, there is great difficulty.

1632. And I take it you hold that whilst local authorities should be compelled and encouraged to light their harbours effectively and properly they should not be allowed to interfere with the lighting of what may be called the maritime highway, because a failure on their part might be disastrous to general trade, the fate of passing ships. If the local authority is allowed to push their lighting arrangements too far out from the coast, instead of being a benefit it might become a danger?—I think that is so, Sir. I may say that the Commissioners on at least one occasion refused to allow the Congested Districts Board to put up a light because they thought the place too important for the class of light which they proposed to put up.

Inspection Committee:

1633. With regard to your Visiting Committee which goes round the coast to inspect the lighthouses, I understand the Visiting Committee goes round the coast?—Yes.

1634. The Engineer does not accompany them?—No.

1635. But you do accompany them?—Yes.

1636. Is that an annual trip?—Yes.

1637. And it is made on board the "Pharos"?—Yes.

Allowances of,

1638. I wish to compare yours with the arrangements in other countries. How is the cost of that annual trip borne?—The Board of Trade allows the Commissioners to spend in the year £460 for all the expenses in connection with the after-cabins of their four steam tenders, for any entertainments that they may give in their official capacity and for any refreshments they may have in the office at headquarters. That covers not only the expenses of the Inspection Voyage Committee, but the expenses of all the officials travelling in the after-cabins of the steamers, the Secretary, the Superintendents, doctors, contractors, the Engineer—in fact, everyone travelling in the after-cabins of the steamers. No personal allowance is made to a Commissioner or official when on board.

1639. Would that sum of £460 a year be available or applicable to paying travelling expenses of members of your Commission attending meetings of the central body?—I think, Sir, as a matter of fact, that they can charge that expense already, and that it would come under a different heading of the accounts altogether.

1640. But you have the power to pay the out-of-pocket travelling expenses of your Board?—Certainly, of the Commissioners travelling from headquarters on business.

1641. (*Sir Frank Adam.*) Attending a Board meeting?—I am sure the Board of Trade would never raise the question if these expenses were paid, but as a matter of fact they have not been paid.

1642. A Sheriff coming from Inverness to Edinburgh, would he get his expenses, coming to attend a Board meeting?—They have never been applied for as far as I am aware; the sheriffs are resident in Edinburgh. But the provosts might charge their expenses.

1643. (*Mr. Ennis.*) I merely asked the question because a Board constituted of members spread all over the face of the country, the attendance of members must be affected by the fact of high expenses if they were not paid?—Certainly, Sir; that is so.

Light dues: Collection of,

1644. You say that the work of collection of the lights dues has been transferred to the Board of Trade by arrangement, but the Northern Lights still remain with a statutory obligation to collect them?—Yes, we are nominally liable still by statute.

1645. You are statutorily liable for any failure to collect them?—Yes.

1646. As a matter of practice you are quite safe; they are collected by the Customs at a cost, as I understand, of about 1½ per cent.?—That is so, I believe.

1647. You do not spend any very large sums on the removal of wrecks, but you do search the North Sea for derelicts?—Oh, yes, when anything is reported we search. Of course, we have on occasion had to spend large sums on wrecks.

Wrecks: Removal of,

1648. With regard to your Board meetings, a quorum of your general body is five only?—Yes.

Northern Lighthouse Board: Quorum for meetings.

1649. Is not that rather a small number for a quorum of the Board consisting of 25 members?—I think not, when you consider the Commissioners are *ex officio* and unremunerated, because in fixing the size of a Board of that description you must take into account that there are certain to be members who will never attend.

1650. Your answer carries with it the assumption, which I have no doubt is well grounded as perfectly just and accurate, that in a Board constituted as yours is a considerable number of members will not attend regularly?—Do not, that is perfectly certain.

1651. But still, as a general principle, a quorum should be a reasonable number?—I think in the Irish service a quorum is three; I may be wrong.

1652. It does not follow that because I consider the quorum of the Irish Board too small I should not query it in your case also?—No.

1653. I mean the usual quorum in public bodies?—In our case it was fixed by Act of Parliament in 1786, and has been maintained ever since, the same quorum being fixed by Section 668 of the 1894 Act. The question has never been raised.

1654. You also consult shipowners and shipmasters with regard to works which your Board have done?—We do on occasion.

Representation of shipping community on,

1655. Would you consider it an improvement if it were possible to place on the Board of Northern Lights a limited number, a reasonable number, of very experienced nautical people?—Do you mean shipmasters?

1656. Shipmasters, people who have practical nautical knowledge; would you consider that a strengthening of your Board?—Well, it might be from the point of view of new seamarks. It would not strengthen the Board with regard to ordinary administration, which is very peculiar and has nothing to do with nautical matters. But as matter of fact I do not think the Commissioners ever felt the want of a nautical adviser. Mr. Stevenson has nautical knowledge; he can navigate a ship, and he has an unsurpased knowledge of the Scottish coast. We have also very experienced shipmasters on board our steam tenders who have also a most minute knowledge of the coast. We have, further, the whole of the Trinity House, and beyond them we have the expert advisers of the Board of Trade.

1657. But you would prefer to have your own body self-contained, and to have it a competent body irrespective of the qualifications of the Trinity House or the Board of Trade?—That is another matter.

1658. I mean you would prefer that your own body should be a thoroughly qualified body irrespective of the powers of the people who are over you?—The Commissioners consider that the Board is thoroughly qualified, and they think that has been proved.

1659. I do not raise the question as to what is past. It might be held as to your Engineer—it is a personal case—he is an exceptional Engineer?—I am perfectly certain the Commissioners would raise no objection whatever to there being a nautical element on the Board.

Head Office Establishment: Appointments of clerical staff.

1660. With regard to your staff of light-keepers, with regard to your office staff, I mean with regard to your officials, your clerical department, what method of selection is pursued?—For the clerks, that is?

1661. Yes; what is the general method as applied to the entire staff?—Well, Sir, the officials are appointed by the Board.

1662. Is that in the nature of a competitive examination?—No, not for the officials.

1663. There is nothing in the nature of a competitive examination, and then rising to the higher posts by promotion, that is not the system?—Yes, Sir, for the clerical staff, and they may be, and have been, promoted to the highest posts. The Commissioners make a short leet of a certain number, I think it is 6, which is submitted to the Civil Service Commissioners, who examine the candidate, and any vacancy is filled up on their recommendation. But that only applies

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to the clerical staff. I may say that my own position was advertised.

1664. With regard to the light-keepers and the staff generally, is there any provision for medical attendance?—Yes, Sir, there is. It varies, of course, with the local circumstances, but in remote stations we pay retaining fees to the doctors, and so much a visit. At stations which are near towns lighthouse keepers are entitled to call in any doctor they like, and we pay so much a visit. The expense as matter of fact is extremely large in some cases; we pay over £800 a year now for medical expenses.

Lightkeepers: Medical attendance for,

1665. For the families of the light-keepers as well as the keepers themselves?—For any of the family resident, except adults who should not be resident; we do not pay their expenses.

1666. I understand you to say that you supply—I am not quite clear about your answer on this point—to some class of the light-keepers provisions free to the value of, say, 1s. 9d. a day?—1s. 9d. a day. It is the same in all the services on the rocks; only on the rocks.

Allowances of,

1667. That means in effect something over £30 a year added to the fixed salary that you have given us particulars of?—Yes, Sir, but this has to be taken into account, that they have to maintain a separate establishment at home; their families are living on shore. It is only when they are on the rocks that they receive provisions.

1668. But you provide dwelling for them at home?—Yes, Sir, we do, but not food.

1669. Do you charge them rent out of their salary?—That is part of their pay; in every case the dwelling-house is part of what the man is entitled to.

1670. Do they receive the dwelling in addition to the figures you have already given us?

1671. (*Sir Frank Adam.*) It is part of their pay. It is part of the arrangement made when they are engaged; free house and so much salary?—With coal, light, and so on, which are valued for superannuation purposes at £25 a year, but when on the rocks they are entitled to get provisions. I believe in the other services they get the money and provision themselves.

Lightvessels and Rock Lighthouses: Provisioning and relief of,

1672. (*Mr. Ennis.*) This is a question I have been asking the other Lighthouse Authorities. How are the provisions delivered—you have only one lightvessel—to the crew of that lightvessel and to the rock lighthouses?—Every fortnight; fresh provisions are taken off every fortnight, and a return of the description and quantity is sent to headquarters. Every month another return is sent in, showing the stock of the preserved meats and so on—the reserve stock.

1673. I suppose you are aware in the case of Trinity House it is once a month only?—They relieve their rocks only once a month, I believe, as a rule.

1674. The Irish three times each month?—As I understand, they do not provision their men with fresh meat at all; they leave their men to provide for themselves out of their money allowance.

1675. But still the visit is made, so far as the lighthouses are concerned, three times per month?—I cannot tell you. Most of our places are tidal. We can only land at them as a rule at low water of spring tides, or once every fortnight.

1676. Could you give us this information for the purpose of comparison; you say you have eight cases in which you have boat owners who are contractors to your Board at so much per trip?—Most of them are paid salaries.

1677. Can you give us the amount of these salaries, or the rate per trip?—Do you wish a return?

1678. If you could give us the amount?—It varies greatly. The first one that comes to my mind is on the East coast, where there is a narrow passage between the mainland and the rock. A local salmon fisherman does it there, and he is paid £40 a year. I could put in a boating return.

1679. It is for the purpose of comparison with other places I am anxious to have it?—Yes, it rises to as much as £130 at one place.

Lightvessel: Cost of,

1680. Then I understand you to say that the cost of the only lightship you have is £1,450 per annum, including repairs?—Yes, that is the average of the last seven years, including one large overhaul.

1681. And £1,270 excluding the overhaul?—Yes.

1682. That does not include anything for the cost of administration; cost of the head office, things of that kind?—No, these are the sums which are entered to the special abstract of the accounts; that includes hiring a vessel when the lightship was off her station.

1683. I think you have promised to give us the rates of pay of the men in a return?—Yes.

Stores: Oil.

1684. With regard to the oil supply, I think you told us this is Scotch oil?—Yes.

1685. What class of oil is it; what type of oil?—It is made according to a specification of your own, with a certain flash point and firing point, a certain specific gravity, and fractional distillation has to bring out certain results, and so on.

1686. Is there competition for it?—There are four companies.

1687. And then you have competition?—Oh, yes, four companies always.

Coal.

1688. And the coal; you use what type of coal?—Scotch coal, except in Shetland, where we use English coal, partly because it is more easily obtainable there, and partly because, in the case of English coal, we supply a smaller amount to the lightkeepers, and it is therefore more easily landed.

1689. Any written question any Commissioner might wish to put you will reply to afterwards in writing?—Yes, Sir, certainly. My instructions from my Commissioners are to give the Commission every possible information.

1690. (*Admiral Henderson.*) Will you please put in a list of the wrecks and derelicts with which you have had to deal during these last two years; on how many occasions you had really to look out for derelicts and things of that sort?—Yes.

1691. Have you a map showing the position of your lights?—Yes, Sir, but I regret that I did not bring it.

1692. Will you send us one?—Yes; I am sorry that I omitted to bring it.

Conferences of Lighthouse Authorities with Board of Trade.

1693. What are the conferences which you have at the Board of Trade?—Well, Sir, there are two in the year, as a rule. One is a preliminary conference between the three General Lighthouse Authorities and the Board of Trade on the estimates for new works during the ensuing year, when any differences between the Authorities, or between the Authorities and the Board of Trade, are, if possible, provisionally adjusted. There is a conference later, when we meet the Advisory Committee of Shipowners, prior to which the Board of Trade gives no final decision.

1694. How many officials or members of the Scotch Board have to attend?—At this conference?

1695. Yes?—As a rule, two Commissioners, with the Secretary and the Engineer.

1696. That is four people?—Yes.

District Superintendents.

1697. Have you any suggestions to make as to any question of improvement in the arrangement of your districts and their superintendents?—None whatever, Sir. We have no districts in the sense of the English service at all; that is to say, we have district superintendents who go out from headquarters and return to headquarters, and have each a district, but that is all.

1698. You do not think it would be a greater economy to keep one of these up in the North, for instance, instead of always having to go from Edinburgh?—He does not always go from Edinburgh; he is away almost continuously for eight months. In my experience of six years I do not think a district superintendent has had to go three times specially from Edinburgh; they are away for eight months putting things in order. We have no workshops and no mechanics actually in the service. They are only hired to go with the district superintendents.

1699. What I was driving at was that Edinburgh was rather a far-off centre from many of these lights and places?—It is as convenient as any other centre would be. I do not know really what better centre we could get.

Engineering Workshops not desirable for Northern Lighthouse Board.

1700. (*Sir Frank Adam.*) Have you ever considered whether it would be an advantage to have your own engineering workshops?—Yes.

1701. And what was the result?—It would not be an advantage to have them.

1702. It would not be an economy?—No; at any rate, as far as the Commissioners can make out.

1703. We have had evidence before us that the Trinity House, who have engineering workshops, have saved money by doing their own work, and been able to do it cheaper than the tenders?—Well, Sir, I think if the accounts are compared of the two services, you will find that there is practically nothing in our service which is represented by a very large sum for workshops in the Trinity House Service. That is to say, all the work is charged directly to lighthouses or lightships, or buoys and beacons, or steamers, as the case may be, in our service, and we have nothing to correspond to that large sum for workshops.

1704. The point I wanted to bring out was, that you have considered the question, and decided it would not be an advantage?—Yes, Sir.

1705. (*Admiral Henderson.*) I think you said you were going to give the number of local lights you have to deal with and inspect?—Yes.

Buoys: Inspection of,

1706. The inspection of buoys; what are the regulations on the subject. Are they regularly inspected by the Commissioners?—In the spring there are block programmes made of the work to be done by the four steamers throughout the year. These having been adjusted special programmes are made for stores, buoying, and so on. Certain weeks in the year are almost entirely given up to buoy work, according to a programme. The steamers go round systematically from buoy to buoy, examine them, and see that every one of them is in its position, change them if necessary, renew moorings, etc.

Replacement of,

1707. What arrangements have you for the immediate replacement of displaced buoys?—On any report, of either a light out on a buoy, or a displaced buoy, the office is telegraphed to, and instructions are at once sent to the responsible steam-tender master in the locality.

1708. You do not employ any local people to do this work?—Not to replace buoys, because that is, as a rule, impossible with a small boat, but in the case of lights being extinguished we employ a certain number.

1709. Where do you keep your spare buoys?—We keep them at Oban, Stromness and Granton principally, but we have spare buoys at some other convenient places as well—at lighthouse stations principally.

Testing of cables for,

1710. What arrangements have you for testing your buoy and mooring cables?—They are tested before they are delivered. As a matter of fact, we do not test them after that.

1711. Not after delivery?—No, the lightship chain is the only chain which I remember is tested if there is any question about its being worn, and that has to be sent to Glasgow, but the other chains are tested at one of Lloyd's proving houses before they are delivered.

Steam-vessels: Work of,

1712. You have there, I think, a sketch of each steamer's work, with the number of miles steamed, for 1905?—Yes.

1713. You might put that in.—I shall be glad to supply it; but I can hardly put it in in this form.

1714. Is your system of administration based on that of the Trinity House; I am speaking of the details of administration, not the Board?—I do not think so.

Communication between General Lighthouse Authorities.

1715. Do you take any steps to confer with the Trinity House?—Yes, Sir; our Superintendent, for instance, was sent by the Commissioners, about two years ago, to London, where by the courtesy of the Elder Brethren he spent a considerable time in looking into every possible practical detail of their administration. He also went to certain lighthouse stations, and subsequently anything that seemed worthy of adoption was at once adopted.

1716. But is there no means of communication between the Scotch Board and the Trinity House as to efficiency of administration or general system of lighthouses and their management?—Well, Sir, we meet the Trinity House more or less at intervals throughout the year.

1717. Do you have any communication with the Irish Board?—We meet them in the same way.

1718. Are you yourself acquainted with their system?—Certainly not as well as I am with my own, but I am in many particulars.

1719. And with the Trinity House?—And with the Trinity House.

1720. And are your officers? When I say "your officers," I mean your Engineer and your Superintendent, and people of that sort?—Yes, Sir, in the same way they certainly are, and the Commissioners, too, I may say.

As to Experiments.

1721. Do you work with the Trinity House in regard to experiments?—We have not much; I am talking of recent times.

1722. Yes, recent times; I am not speaking of years ago, I am speaking within the six years of your experience.—The most important experiments that I know of made by the Trinity House were fog-signal experiments at St. Catherine's, in the Isle of Wight, and our Engineer was present at them.

1723. Do the three Boards at all unite for the purpose of experiments or to find out where information is wanted; how experiments should be made?—The Engineers are in more or less constant communication.

1724. There is no official touch?—No, not otherwise as regards experiments.

1725. (*Chairman.*) If Trinity House were carrying out an important series of experiments, I suppose they would communicate with you and inform you?—Oh, they would be certain to, and invite a representative of the Commissioners to be present.

As to Seamarks.

1726. (*Admiral Henderson.*) Is there any attempt to get a uniform system in the management of the lighthouses and lightships?—Well, I do not know that there is. The Commissioners consider that their system is as efficient and as economical as it can be, and they have no desire to depart from it.

1727. Are you aware of any complaints in Scotland against the Northern Lights Commissioners?—I have heard. I have read, for instance, resolutions passed by a Chamber of Commerce reflecting on the Board, without details of any kind, however; there has been no complaint to the Board.

Board of Trade Control: Nature of,

1728. What is the effect of the Board of Trade control on your administration; I mean to say, would you say that this control relieved you of responsibility?—No, Sir, I would not.

1729. Would you say that it involved a good deal of work and correspondence?—Certainly.

1730. Would you say more than is necessary?—No.

1731. Is there any tendency to increase this correspondence?—No, absolutely none, not in my time; in fact, it is very much less than it was at one time. It certainly was, I think I may say, with deference to the Board of Trade, vexatious at one time.

1732. Do you look upon it favourably, the check that the Board of Trade hold over you?—As chief responsible official I am glad of the Board of Trade control and audit.

1733. You do not consider that it interferes needlessly?—No; in my experience it certainly does not. I think it makes for economy.

1734. On the whole?—Certainly, in ordinary maintenance and administration. I am not at this moment speaking of new works; that is rather outside my province.

1735. You say there is no tendency to increase it?—None, Sir; certainly not in my time.

1736. Then the Board of Trade do nothing for you excepting in financial control and new works control really?—Well, I do not know that there is anything else.

1737. Do you have to put every contract before it?—Every contract.

1738. Every single contract?—Every contract, except, of course, for the merest trifles, but they must be provided for in the estimates.

1739. But for the yearly contracts, before you can make them you have to get the Board of Trade approval?—For all expenditure for work or stores we have to go to the Board of Trade, and for every payment which is to be continued from year to year, even a shilling a week, we have to go to the Board of Trade.

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1740. Does the Board of Trade undertake any work such as it did with the "Pole Star" some years ago? The "Pole Star" was more or less built by the Board of Trade, or the Scotch Board practically did not hold themselves responsible for it, and put it on the Board of Trade?—There was a difference of opinion on some points.

1741. Is there anything of that sort?—No, there has been nothing of that kind lately. The Board of Trade officers on the East and West Coast, as I say, superintend all our overhauls of steamships, and so on.

1742. The Loch Eireboll light; is that one of yours, or is that one of the Congested Districts Board?—That is a Congested Districts Board light.

1743. Do you suppose that there would be any tendency to economy in any form if you could go beyond a year in laying down new proposals for work; I mean to say would it tend to efficiency if, instead of laying out actually from year to year, you were able to lay out for two or three years ahead?—Well, I do not know that it would. Of course, most of our proposals which come up just now involve expenditure extending over the next three years. Very few of the works, except the smaller ones, are completed in one year.

1744. (*Chairman.*) When a work has been sanctioned by the Board of Trade it may last over several years; the fact that it is once sanctioned and begun involves a certain amount of expenditure on it in each year?—That is so.

1745. (*Admiral Henderson.*) Do you know what amount of the Lighthouse Fund for 1905 was collected in Scotland?—No. I could easily ascertain it. We have absolutely nothing to do with the light dues; they do not now come before us in any form.

Local Lights: Applications for sanction of,

1746. Do you get very many applications from the local light authorities for new work?—For sanction?

1747. Well, nominally for sanction; yes, for sanction, but also on the boundary line; what we call the boundary line between your function and their function?—No, Sir, not from local authorities. Our principal difficulty is when we get requests from outside for lights which are on the boundary line between local and general seamarks.

1748. (*Chairman.*) The local authorities are not very anxious to extend their activities beyond their own territory?—That is so.

1749. (*Admiral Henderson.*) I suppose they are not.—As a matter of fact, I do recall one now quite recently where a local harbour authority—it has two or three harbours—did invite us to put up a light which was really of no use whatever except to facilitate access to one of their piers; but that is very unusual.

1750. Are many of these lights demanded from small and local interests?—Yes, many of them.

1751. Is there any difficulty in discriminating between these demands and demands for sealights proper?—Very great difficulty; it is one of the greatest difficulties in a small way that the Commissioners have to deal with.

Disputes as to,

1752. And do many disputes arise in consequence?—There has frequently been a difference of opinion between the Commissioners, the Trinity House, and the Board of Trade, as to whether a light was local or general. I may say a report was prepared at the request of the Board of Trade by the Commissioners some years ago on this very question, which I have no doubt they will be glad to supply to the Commission.

1753. So far as you are aware in any of these questions, either for the general lighthouses or local lighthouses, is there any local or political pressure brought to bear?—Absolutely none on the Commissioners, but the Sheriff of the bounds or a Provost may be requested to submit local views to the Board.

1754. Is there a light on the Vee-Skerries now?—No.

1755. It has never been taken in hand?—No.

Inspection of Scotch Seamarks: By Northern Lighthouse Board.

1756. Do you look upon the inspections by the Commissioners themselves, this annual inspection, as of any great value?—To whom, sir—to the service?

1757. Well, to the service?—I think it is. I may say that the stations are in such good order that there is really extremely little for the Commissioners to remark on, but I do think it is valuable both to the service and to the Commissioners.

1758. For information?—Yes, and efficiency.

1759. Do you think that when the Trinity House has come up and inspected any of your lighthouses or stations it has been of any value?—Well, Sir, I cannot say. They have not done it for many years. They have been in our lighthouse stations when they were passing, and they have informally expressed themselves pleased with what they saw, but there has been no formal inspection. By Trinity House.

1760. Do you issue hydrographic notices, Notices to Mariners?—Yes, we do.

1761. Separate from the Trinity House?—Yes.

1762. Do you send them to England?—Yes; in England they are distributed by the Trinity House, just as we distribute theirs. They send us notices to distribute in Scotland. *Notices to Mariners*: Issue of,

1763. How many notices do they send to you?—It depends on the importance of the light; it may be 2,000.

1764. You send them to the shipping interest?—And to local authorities; we have an exhaustive list.

1765. And do you do the same by the Irish Lights?—Yes; and we also supply them to the Board of Trade and the Admiralty.

1766. Have you any library system?—Yes, Sir; there is a library at every lighthouse and steam tender, and there is a circulation of magazines and newspapers. *Lightkeepers*: Library system for,

1767. (*Sir Frank Adam.*) You have been asked several questions with regard to masters of steamers being responsible for buoys being out of place?—Yes.

1768. Would it be possible for a buoy to be out of place and them not to notice it for any length of time?—No, quite impossible.

1769. Your system protects you against that?—Yes.

New Works: Initiation of,

1770. As regards new works, I understand from what you said in your evidence-in-chief that the Commissioners do not take the initiative as a rule, or not at all perhaps, in suggesting new works?—I would rather say, as a rule. It is unnecessary.

1771. Whence does the initiative come?—Well, almost every possible new work, certainly of any magnitude, has been before the Commissioners for a great many years. They practically pick and choose among works which they think eminently necessary, but which cannot possibly be proceeded with all at once.

1772. And the suggestions in regard to which have come from outside?—Have come from outside as a rule.

1773. Do the Commissioners take any measures to acquire a knowledge of the views and requirements of the trade?—They do if they have any doubts about the matter. If any questions are raised the Board of Trade sometimes invites them to do it.

1774. But you have no systematic way from year to year of endeavouring to ascertain whether anything particular is urgently required by the trade?—No, Sir; we have no systematic method apart from being informed of the views of the Advisory Committee of Shipowners.

1775. Under the present system, as indicated by you, is it possible that sufficient local pressure could be brought to bear upon the Commissioners to do a new work in any particular district which might be to the detriment and delay of another work equally important?—Absolutely impossible.

1776. When you are considering what new works you are to undertake, do you call in of yourselves and take the advice of the representatives of the shipowning fraternity?—Not generally, Sir. If we have doubts, as I said, on any special seamark we do take or have taken advice.

1777. Suppose you have two particular lights, for instance, under consideration, and the question is which would you do first, would you consult them as to which you would consider most important or do first?—No, Sir; we should put them both in for discussion with the Board of Trade.

1778. Supposing you could not get sanction for more than one that particular year, how would you decide which was the more important?—If it came to that, when we went to the Board of Trade we would say, if we can only have one of them we would rather have so-and-so.

1779. You would decide that yourselves?—No, not necessarily; we might take advice.

1780. Take the opinion of the trade?—Yes.

FIFTH DAY.

Friday, 30th November 1906.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Mr. Arthur Norman Hill, called in; and examined.

Mr. A. N. Hill.
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1781. (*Chairman.*) You are, I think, the Secretary of the Liverpool Steamship Owners' Association?—Yes.

1782. And are here to give evidence on behalf of the Association?—Yes.

Liverpool Steamship Owners' Association: Amount of shipping owned by,

1783. Can you tell us the amount of steam shipping which the members of the Association owned at the end of 1905?—We owned at the end of 1905, 3,524,426 tons of steam shipping, comprising upwards of 21 per cent. of the total British steam tonnage afloat.

Light dues paid by,

1784. And what was the amount paid by members of the Association during the preceding year in light dues?—I cannot give it for 1905. I ascertained from each member of the Association the amount he paid in 1902, and the total exceeded £70,000.

1785. What fraction does that represent of the total amount collected in light dues?—The total amount collected is in round figures £500,000 per annum, and it is estimated that of that sum from £130,000 to £170,000 is collected from foreign ships. If that estimate is a reliable one, then it leaves £350,000 collected from British shipowners, of which sum the members of the Liverpool Steamship Owners' Association pay upwards of one-fifth.

1786. The inference being that, whether measured by tonnage or by the dues paid, your Association represents something like one-fifth of the whole British steam shipping?—That is so, Sir.

1787. Have you any observations to make on the general system of management in operation at the Lighthouse Boards?—The members of the Association know so little of the system of management at present in operation at the Lighthouse Boards that they have great difficulty in submitting any suggestions.

Expenditure of General Lighthouse Authorities:

1788. Even as regards new works?—Well, Sir, the appointment by the President of the Board of Trade of an Advisory Committee in relation to the new works has enabled the Association (through its representative, Sir Alfred Jones) to obtain some insight into the system of management, in so far as it relates to new works undertaken by the Lighthouse Boards. The expenditure on new works, however, only represents about one-fifth of the total expenditure, and the Association has, except from general results, no opportunity of judging of the general management.

1789. But with regard to the general results?—I have prepared a table showing the expenditure of the Lighthouse Boards during each of the last six years, the average annual expenditure during those years and the average annual expenditure during the preceding years, and I would like, Sir, to put in that statement if I might.*

1790. Have you any special reason for taking periods of six years?—I have compared the expenditure since the 31st March, 1899, with the expenditure prior to that date, because the Merchant Shipping (Mercantile Marine Fund) Act, 1898, enacted that from that date the light dues should be applied to the payment of the cost of maintaining the lighthouse services and to no other purpose whatever.

1791. You regard that change as of importance from the point of view of good and economical administration by the Lighthouse Authorities?—Yes, Sir, I regard that change as having taken away the only effective check which existed up to that date from the economical point of view of the management.

1792. Yes; we will come to that point presently?—If you please.

1793. In the tables which you submit I think you deal only with the direct expenditure of the Lighthouse Boards?—That is so, Sir. I have omitted the cost of maintaining the electrical communications and the cost of collection.

1794. These are not very large, I take it?—No, Sir, they are quite small, and I cannot compare them with similar expenditure in the years prior to 1899.

Average total for the last six years.

1795. Will you broadly summarise the result of your tables?—The average annual expenditure of the three Lighthouse Boards during the six years ending the 31st March, 1899, was £412,635. During the six years ending the 31st March, 1905, the average annual expenditure had increased to £487,940; that is, the expenditure of the three Lighthouse Boards had increased during the six years by 18.2 per cent.

1796. And dealing with the Lighthouse Boards separately, what are the figures which you have got out?—The average annual expenditure of Trinity House has in the six years increased from £236,341 to £276,250, an increase amounting to 16.3 per cent. The average annual expenditure of the Irish Lights Commissioners has increased from £93,329 to £119,442, an increase of 27.9 per cent. The average annual expenditure of the Northern Lights Commissioners has increased from £82,964 to £92,247, an increase of 11.2 per cent.*

1797. I observe that 1905 is the last year for which you give the figures. The figures for 1906 I think are available, are they not?—I have not had them yet, Sir; it may be my fault. I try and get them as soon as they are published.

1798. It has been given in evidence by Mr. Pelham that the amount expended on new works by the three Lighthouse Authorities for the year 1905-6 amounts to £50,456?—For last year?

1799. For last year?—I do not think those accounts have been published, Sir. As a rule they are published in February. In February, 1907, we should get the accounts up to March, 1906.

1800. If the year 1905-6 had been included the results would have appeared a little more favourable on the side of economy, would they not?—The percentage increases, Sir, would have been reduced.

1801. In addition to increases of expenditure on new works there have been increases, I think, in other items of expenditure?—Yes.

Average, on New Works for the last six years.

1802. As we are on the subject of new works, let us have that first?—The increases have been heaviest under the head of new works. Lord Courtney's Committee

* See Appendices C, I. and II.

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reported in July, 1896, that they were informed by the representatives of Trinity House, the Northern Lights Commissioners, and the Irish Lights Board, that £25,000, £10,000, and £15,000 respectively expended annually in new works would be fairly satisfactory. The actual expenditure during the five years ending in March, 1895, had averaged £57,458. The expenditure for the six years ending March, 1899, averaged £65,103. The expenditure for the six years ending March, 1905, has averaged £95,852. This expenditure exceeds by 91.5 per cent. the estimates placed before Lord Courtney's Committee by the Lighthouse Boards, and by 47.2 per cent. the average expenditure during the six years ending March, 1899.

1803. I think I am correct in saying, am I not, that the Northern Lights Commissioners objected to the evidence given on their behalf before Lord Courtney's Committee?—Yes, they objected, Sir, but they did not give to the Committee, as the Committee reported, any figures upon which they based their objections, and the Committee adopted the estimate of £50,000 per annum after having received the Northern Lights Commissioners' objection without details.

1804. Is that the case—do they do more than record the opinion then given by the representatives of the Lighthouse Authorities?—May I quote, Sir, from the Committee's report?

1805. If you please; what page?—This is on page 6, Sir, near the end of page 6. "Thus we were informed by the representatives of the Trinity House, the Northern Lights Commissioners, and the Irish Lights Board respectively that £25,000, £10,000, and £15,000 expended annually in new works would be fairly satisfactory; and although the Commissioners of Northern Lights have in a later communication demurred to the adequacy of the estimate made on their behalf, they offer no specific correction of it. The average amount actually spent during the past five years on new works have been £18,173 by the Trinity House, £24,109 by the Northern Lights Commissioners, and £15,176 by the Irish Lights Board; or an average total exceeding £57,000, the average represented as sufficient being £50,000 only."

1806. Would it not be rather a fairer description of that statement to say that Lord Courtney's Committee recorded the opinion then expressed by the Lighthouse Authorities, but did not adopt it necessarily as their own?—In advising on the basis of charge I think I am right in saying they used the figure of £50,000.

1807. At all events they had no other evidence before them?—No, Sir, there is no evidence except that of the Lighthouse Boards qualified by an objection of the Northern Lights Commissioners without any evidence being submitted in support of that objection.

Average, excluding New Works for the last six years.

1808. Well, now, passing from that to increases in other items of expenditure?—Excluding new works, the average annual expenditure of the three Boards has increased from £347,531 to £392,088, an increase of 12.8 per cent. I would like, Sir, to submit a further table dealing with that expenditure. The disturbing factor appears to me to be new works, which vary very much in amount from year to year. I have therefore in my second table stated separately the expenditure on new works and the other expenditure, and I would like to put that in, because it shows that whilst the increase in the average yearly expenditure is 12.8 per cent., the expenditure other than expenditure on new works during 1905 exceeded by 16.6 per cent. the average expenditure of the six years ending 31st March, 1899. In other words, Sir, the expenditure other than on new works is a steadily increasing expenditure.

1809. Some increase might reasonably be expected, might it not?—On those six years; I do not think so, Sir; I know of no reason.

1810. With the increase in new works alone additional expenditure will become necessary?—The supervision of the additional new works; yes, that would be so

1811. And has there not been a general tendency of wages to rise?—No, I think not during the six years.

1812. An increase in the price of materials and so forth?—No, Sir, I should say not.

1813. I am merely asking for information.—Yes.

1813a. I do not wish to express any opinion myself. —There has been no increase in seamen's wages during the six years; in coal there has been no increase; materials have been up and they are down—shipbuilding materials. I do not think there has been any general increase in prices during the six years.

1814. I think that you refer somewhere in the *précis* of your evidence to the expenditure on lighthouses in the Mersey?—Yes.

Mersey Docks and Harbour Board: Expenditure of, for the last six years.

1815. Has there been any increase in the expenditure on those lighthouses during the six years. The Commission are naturally anxious to obtain all the materials for comparison of particulars that they can? —I can give you that; I have extracted the six years somewhere. The figures, Sir, are from the Mersey Conservancy Account:—

1900 - - - - -	£34,194.
1901 - - - - -	32,047.
1902 - - - - -	33,526.
1903 - - - - -	30,120.
1904 - - - - -	34,149.
1905 - - - - -	30,187.

that is an average, Sir, of £32,371.

1816. I think it would be of great interest to the Commission if you could let us have a detailed statement of the expenditure on the Mersey Lighthouses for the last six years?—I am afraid I could not give it you.

1817. Would not that be possible?—I have no doubt you could get it from the Docks Board. The Docks Board publish annually their accounts, and one account deals in particular with the Conservancy account, and that is the only account which is made public. I had to write to the Docks Board to get the number of lighthouses, buoys and lightships. I have on previous occasions asked them for information as to details of the cost of maintaining lightships and such things. They have given it to me, but they have always made me promise not to use them or not to publish them; but I feel sure if you communicated with the Mersey Docks and Harbour Board they would put any information that they had at your disposal. I can hand in their published accounts if that would be of any value.

1818. I am much obliged to you, but perhaps it would be better for us to address a communication direct to them.—Yes.

Expenditure of the General Lighthouse Authorities: On Steamvessels is excessive.

1819. I think the next item of expenditure is that on the maintenance of steam vessels?—Yes, that has averaged during the last six years £79,483. During the preceding six years the average annual expenditure under this head was £67,512, the increase £11,971 represents an increase of 17·7 per cent. In the opinion of the Association an expenditure of £79,000 on maintaining the communications with the lighthouses and the lightships cannot be justified.

1820. Your Association is of opinion that that expenditure cannot be justified?—Yes.

1821. Do you base that opinion upon specific facts or upon general impressions?—Well, Sir, we know as a matter of fact that there are some vessels kept otherwise than for the purpose of maintaining the communications. To our mind it is incredible that £79,000 can be spent in maintaining communications.

1822. Do you express that opinion without having gone, or having had the opportunity of going, into the details of the expenditure?—Yes, Sir, but we know what ships, for instance, the Trinity House has afloat.

1823. Have you any calculations that you could submit to us?—No, Sir, but a very substantial sum out of the £79,000 must be spent on maintaining and running Trinity House yacht.

1824. Is that a conjecture?—Well, it must be, Sir; it is nowhere else in the accounts.

1825. You are so confident that you must have some figures to rely on, however vague?—If you please, Sir, it is an assumption, but we know what the Trinity House revenue is apart from the light dues. That has been published in a Parliamentary paper, and we know the Trinity House maintains its yachts, and we contend that the yacht is certainly not necessary for maintaining the communications.

1826. Do you refer to the "Irene"?—Yes.

1827. But is the "Irene" only used as a yacht for the Trinity House?—Well, Sir, if I might put it this way, we do not believe that all the steamships that the Trinity House have afloat or that any of the Boards have afloat are necessary for maintaining the communications.

1828. That remains a general impression, Mr. Hill; I do not want to press you too hard, but it is only a general impression; you cannot give us any figures?—No; but, of course, the members of the Association are all practical shipowners. They know how they would maintain communication; they know how such communications can be maintained by hired tugs and by such means, and knowing the steamships that the Boards have afloat they are of opinion that they are not necessary to maintain the communications.

1829. I should be very glad to see any calculations bearing upon that point; if such calculations could be put before us they would be of very great service to us?—If we might have an opportunity of having the accounts—the accounts which show this average expenditure of £79,000, how that had been expended, how the vessels have been employed, the number of days that they have been on the service, the number of days that they have been in port, what crews are maintained on those vessels, we could deal with it, Sir, but in the only accounts that are published this expenditure is treated so much in a lump that we cannot submit any useful criticisms to you on points of detail.

1830. But still you consider yourself justified in expressing the strong opinion which you have just expressed, although you have not got the details before you?—Certainly, Sir. It is unnecessary to maintain this number of vessels to maintain efficient communications with the lightships and the lighthouses and to supervise the buoys.

1831. And in support of that you are not, at all events at the moment, able to give more than your general impression that such must be the case?—That is so, Sir. If you will give us the accounts we will point out where we believe the waste is. We know there is waste.

On Head Office expenses.

1832. Passing on to head office expenses, miscellaneous expenses, superannuation allowances?—£80,186 has on the average of the last six years been spent on account of head office expenses, miscellaneous expenses, and superannuation allowances, the details are as under:—Head office expenses, £36,159; miscellaneous, £17,791; superannuation allowances, £26,236. Such a charge as £80,000 per annum in respect of the administration of a total expenditure of £500,000 requires, in the opinion of the Association, most careful investigation. Might I add, Sir, that there again my first table shows a very great increase under those heads. The average expenditure under those heads for the six years ending 1899 was £67,908. There has been an increase therefore on the average of £12,278, or 18 per cent.

On Superannuations.

1833. And salaries and wages?—Well, Sir, with regard to the superannuation the published accounts do not show how much of the £392,000 is represented by salaries and wages, and it is therefore very difficult to form any opinion as to a reasonable amount to allow in superannuations, but it is very difficult to understand how those allowances can possibly amount to as much as £26,000 per annum.

1834. Do you know the system under which superannuation allowances are granted?—No, it is nowhere published.

Merchant Shipping Act, 1898: Effect of, on Lighthouse Expenditure.

1835. We now come to a point on which you have already touched in your evidence, and that is the effect of the passing of the Act of 1898 upon the economical administration of the lighthouses?—Prior to the passing of that Act the Treasury was directly interested in keeping down the expenditure of the Lighthouse Boards. Up to that date the surplus collected in light dues over and above the amount expended by the Lighthouse Boards went in general relief of taxation. Since March, 1899, the Treasury has ceased to have any interest in either the amount collected in light dues or in the expenditure of the Lighthouse Boards, and as from that date there has been an extraordinary increase in the expenditure of the Lighthouse Boards.

1836. Is it really the fact that up to the year 1898 the surplus collected in light dues over and above the amount expended by the Lighthouse Boards went in relief of general taxation?—Yes, the light dues up to 1899 went into the Mercantile Marine Fund Account. It is rather ancient history, Sir, but if I might just trouble you on that point I can give you some information. In 1882 the shipping fees, which had also been paid into the Mercantile Marine Fund Account, were abolished by Parliament as a relief to shipping. Immediately that account showed a deficiency each year. There was charged against the Mercantile Marine Fund Account the expenditure of maintaining the lighthouses, the expenditure of maintaining the shipping offices, and the salaries of all Board of Trade surveyors, and such things. Because the shipping fees were abolished the expenditure charged against the Fund immediately exceeded the receipts. For some years the deficiency was made good out of accumulations of light dues from previous years. Then after those accumulations had been exhausted the light dues were increased substantially. At the time they were increased the amount collected from light dues exceeded—far exceeded—the cost of maintaining the lights, and I think, Sir, there was no question that the light dues were then increased with a view of making good the deficiency on the account, and that system continued until Lord Ritchie brought in his Bill providing that the amounts collected from light dues must be applied in the maintenance of the lights, and for no other purpose. From 1882 until Lord Ritchie's Act there had been collected certainly upwards of £1,000,000 in excess of the amounts required to maintain the lights, and that £1,000,000, through the Mercantile Marine Fund Account, had been used to pay Board of Trade surveyors, and for the Mercantile Marine offices, and similar purposes.

Position of Mercantile Marine Fund prior to,

1837. But that is hardly the same thing as saying that the surplus collected in light dues over and above the amount expended by the Lighthouse Boards went in general relief of taxation; as a matter of fact it went to swell the Mercantile Marine Fund?—Well, Sir, I have omitted one point. The Mercantile Marine Fund Account was put on a new basis in 1882, when they were dealing with this deficiency, and it was then provided that Parliament should pay such a sum as should be agreed annually into the account. It was fixed originally at £50,000, and it was believed that that £50,000——

1838. £40,000, was it not?—£40,000 or £50,000, would make up the deficiency. But I say it was clearly the intention of Parliament in passing that Act that any deficiency should be made up by Parliament, that it should not be made up by increasing the light dues, and I venture to think that was the opinion of Lord Ritchie and the Government at the time when they separated the accounts and put aside the light dues solely for the purpose of maintaining the lighthouse services.

1839. Yes, but I am looking at the question purely from the point of view of Treasury control, and the interest which the Treasury may have had in keeping down the lighthouse expenditure, and the question I asked you was whether it was really correct to say that any surplus collected in light dues over and above the amount expended by the Lighthouse Boards went in general relief of taxation. Surely it went to swell the fund for the time being. Is it not the case that at one time the Fund actually borrowed in the open market because there was a deficiency in its funds?—Yes.

1840. It did not come to Parliament to supply that deficiency, but it borrowed?—It borrowed, but that I believe was for lighthouse purposes.

1841. Was it not for the purposes of the Fund generally?—It went into the common fund, but the deficiency was caused because the receipts from light dues were not sufficient to maintain the lighthouse service. Might I give you an example? From 1882, when the shipping dues were abolished till Lord Ritchie's Act come into operation, there were collected in light dues £7,879,064. There were expended in the maintenance of the lighthouse service £6,532,182. When Lord Ritchie's Act came into operation there was a surplus in hand of, I think, between £200,000 and £300,000. Although, Sir, there had been collected upwards of £1,300,000 in excess of the amount expended in the maintenance of the lighthouse service, there was only a surplus of between £200,000 and £300,000. Now, Sir, if it had not been for the surplus the Treasury each year would have had to go to Parliament under the Act for a grant to meet the charges on the Mercantile Marine Fund other than the lighthouse services.

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1842. I do not wish to be captious, Mr. Hill, but does not the statement you have just made show that the surplus collected from light dues did not, as a matter of fact, go in general relief of taxation, but was accumulated?—No, it was only £200,000 out of £1,000,000.

1843. But it was accumulated none the less?—No, the £1,000,000 was not; the surplus was used to pay the Board of Trade surveyors and the Mercantile Marine offices.

1843a. But when a surplus arose from light dues that surplus did not go to the Treasury to reduce general taxation, it went to the Mercantile Marine Fund?—It went to meet the charges of the Mercantile Marine Fund.

1844. And so far as these charges were met, and a surplus remained, that surplus was paid to the fund; it was not paid direct to the Treasury?—That is true, Sir, but the Treasury would have had to go to Parliament if the amount collected in light dues had only been sufficient to maintain lighthouses.

1845. It did not, as a matter of fact, do so between the years 1882 and 1898. On one occasion when there was a deficiency the Board of Trade borrowed on behalf of the fund?—Well, Sir, it repaid it out of light dues.

1846. It repaid it out of light dues, but I am merely considering the question from the point of view of the interest of the Treasury?—Yes.

1847. It does not seem to me that the Treasury had this direct interest to which you attach so much importance in keeping down lighthouse expenditure. Perhaps it is not worth while pursuing the matter any further, but let me ask this question. Granting that it was the direct interest of the Treasury to keep down the lighthouse expenditure, what means had they of doing so?—Well, Sir, of course we do not know what means they exercised, but we know that the lighthouse witnesses before Lord Courtney's Committee referred to the extraordinary pressure to which they had been subjected to keep down expenditure.

1848. By the Board of Trade or by the Treasury?—I do not think they referred to who it was. "The extraordinary pressure" are the words Mr. Murdoch used; I have not got the passage, but I can give you the reference to it.*

Local Lights: Provision of, from General Lighthouse Fund deprecated.

1849. There is one point to which you particularly desire to draw the attention of the Commission in connection with payments for local lights, I think?—Yes, Sir. Trinity House, I believe, maintains eight lightvessels, twelve lighthouses, 114 ordinary buoys, and sixteen gas buoys for the port of London. It has provided these lightvessels, and has built these lighthouses, and it maintains them out of the light dues. The Association contend that the light dues are levied to provide the "passing lights"—that is, the lights which are of general use. Each separate port, other than London and possibly two or three other ports under the direct control of the Trinity House, has to provide and pay for the lighting of its own approaches.

1850. In Liverpool, for instance?—In Liverpool we maintain 7 lightvessels, 8 lighthouses, 125 ordinary buoys, and 40 gas buoys. The average annual cost of lighting the approaches to the Mersey has during the last six years been £32,371. The ships using Liverpool have had to pay this annual charge of £32 371, in addition to paying in full the general light dues.

1851. Do you know what the historical origin is of this difference of treatment between the port of London and the port of Liverpool?—I think, Sir, it arises from the fact that Trinity House had always in the old days, when lighthouses were held under patents, held the patents for the London lighthouses, and being in that position—being the Lighthouse Authority for the port of London—and having done that work well, gradually the duty of supervising all the other lighthouses round the coast was placed in its hands, and the general revenue from these lighthouses passed over to Trinity House, and it seems to me it was forgotten that Trinity House were acting in a dual capacity, one a Local Lighthouse Authority, the other the National Lighthouse Authority.

1852. Does Trinity House levy dues which might otherwise be paid to a Harbour Authority for the port of London, if such an authority existed?—No, there are no analagous dues to those levied in Liverpool, which pay for our lighthouses and lightships.

1853. So that in effect the port of London is lighted at the expense of the general shipping community?—That is so, Sir.

Trinity House Outports.

1854. Are there other ports in the same position?—I am not sure, but I think it is possible that the Trinity House out-ports, such as Southampton, Fleetwood, Barrow, and Holyhead, and there are some others, may be treated in the same way; those are part of the original establishment of Trinity House before Trinity House was given the national work of lighting the coasts. The Association have been endeavouring to find out in particular with regard to the port of Barrow. There is the Walney light there, and we have been promised, through Parliament, that we should have an opportunity of seeing the accounts; we have not seen them yet.

1854a. The arrangement seems *primâ facie* an unequal one. I suppose in every case there is some historical reason for it?—I believe it is that they have held the old patents either direct or by purchase for the port of London.

1855. And some similar reason possibly exists in the case of the other ports as well?—Yes, Sir, that is their old jurisdiction.

1856. Their old jurisdiction?—You see, Sir, up to about 1822 the principal lighthouses round the coasts were held under patents from the Crown by private individuals, who were making a big profit out of them, and Parliament interfered; the rights of those patentees were bought out, and the management of those lights was handed over to Trinity House, and I think it was forgotten that it would not be reasonable for Trinity House to pool the whole of this revenue for the purpose of meeting all the expenses that it had to meet. There should have been two separate accounts kept, one for its own local work, and the other for national work.

1857. But that was not, as a matter of fact, done?—Never done.

1858. Have your Association contested the justice of that arrangement?—We think it is unjust that any particular port should be maintained out of the General Lighthouse dues.

1859. Do you know if any representation has been made to Government on this subject?—No, Sir, it has never been pressed home very vigorously. I had the honour to submit the point to you, but perhaps I did it very ineffectively, on a deputation.

Constitution of General Lighthouse Authorities:

1860. Well, we come to the constitution of the Boards; has your Association anything to say as to that?—In the opinion of the Association the members of the existing Boards are neither representative of the payer of the dues, nor, speaking generally, qualified by practical knowledge to control the lighting of the coast, or the general expenditure incident to such a public service.

Objections to.

1861. Do you consider that the Elder Brethren of Trinity House are not qualified or practical enough to control the lighting of the coast?—In their case, Sir, I should say that they are not qualified to control the general expenditure incident to the service. I would lay much greater stress on that, Sir. There are some complaints, but not many complaints, as to the lighting.

1862. Quite so; but with respect to the other two Lighthouse Authorities, your Association would be disposed to make both criticisms?—Yes, Sir, and if we might add special emphasis with regard to the Irish Lights Commissioners.

Board of Trade Control over Lighthouse Authorities: Is inefficient.

1863. As to the control by the Board of Trade over the Lighthouse Authorities, have you any representation to make upon that?—We are of opinion that no effective control is exercised by the State over the Lighthouse Boards.

1864. On what do you base that opinion; is this also a general impression?—Oh, no, we know that under Section 640 of the Merchant Shipping Act, 1894, certain new works must be sanctioned by the Board of Trade, that under Section 660 of the same Act the Lighthouse Boards are bound to submit to the Board of Trade

* The witness subsequently sent in the following reference: "p. 403 of Blue Book. C. 8168."

estimates of the cost of the maintenance of the service, and that under Section 664 of the same Act the Lighthouse Boards are bound to account to the Board of Trade for their receipts and for their expenditure. Notwithstanding these sections, the Association is of opinion that the Board of Trade, except with regard to the new works, has no effective control over the management of the lighthouse service. The Lighthouse Boards are statutory authorities to whom have been entrusted the superintendence and management of the lighthouses, and the powers vested in the Board of Trade are, at best, powers of audit and not powers of control.

1865. Have you any specific ground for making that statement. I gather from what you say that you admit the legal powers of the Board of Trade are sufficient to enable them to exercise control over expenditure?—Oh, no, Sir, I think not.

1866. Oh, you think not?—I think, for instance, the Board of Trade have no power to insist on Trinity House using any particular form, or any particular force, for lighting its lighthouses. For instance, suppose the Board of Trade came to the conclusion that electricity was the best means of lighting all the lighthouses round the coast, the most economical, and the most effective; I believe the Board would have no power of enforcing the observance of such a regulation on Trinity House.

1867. Except the power that comes from the right to refuse to sanction expenditure?—It could refuse to sanction expenditure, and the lights would not be lit.

1868. But, taking that instance, do you think that it would be desirable that the Board of Trade should exercise such supervision as that, that it should be the business of the Board of Trade to go into the question whether lighting by oil or lighting by electricity was the best?—It is the business of the State, Sir; it is the business of the representatives of the payers of the dues.

1869. Does that not amount to saying that it is the business of the State to take the administration out of the hands of the present authorities?—Certainly.

1870. That begs the whole question then, because that is one of the matters which we have now to investigate?—Well, Sir, in considering that question the Association trusts that the Commission will have regard to the fact that the State now exercises no control on such matters.

1871. But I want to get at your reasons for thinking that the State exercises no control; are they based upon such an example as you have now given?—That is one example; let me give you another example. I think if you will send for the correspondence that passed between the Board of Trade and the Irish Lights Commissioners, some time back, with regard to certain improvements on the Fastnet, you will see, Sir, that the Irish Lights Commissioners defied the Board of Trade. They would not do what the Board of Trade, and what I believe, Trinity House thought very reasonable.

Defied by Irish Lights Board.

1872. Do you remember the particulars of that?—It was when Sir Courtenay Boyle was Permanent Secretary; it must be now ten or twelve years back. I, on behalf of the Liverpool Association, made strong representations to the Board of Trade, and it got to the point at which, I believe, the Board of Trade told the Irish Lights Commissioners that the position was such that they would bring the whole matter before Parliament unless they gave way.

1873. That was in connection with the Fastnet Light?—That was in connection with the Fastnet Light. Then may I give another instance from Liverpool. We have for years endeavoured to get a sound signal established at Three Castles Head, a point upon which we have lost several of our Liverpool ships. I believe, Sir, we satisfied the Board of Trade that it was desirable that there should be such a signal, but the Irish Lights Commissioners said that it was ridiculous that a signal should be established there, and for years and years they refused to establish a signal there. Now at last they are putting it up. There have been wrecks and wrecks of valuable ships on that point.

1874. Two of the instances you have given us are in connection with new works; but I think you yourself say with regard to new works the Board of Trade has effective control over the management of the Lighthouse Authorities?—To negative them; not to order them.

1875. I see; you are now speaking not with a view to economy?—No, efficiency.

1876. Efficiency of the administration?—That is so, Sir.

1877. What you say in your *précis* with regard to the control of the Board of Trade has economy in view, has it not, rather than efficiency?—It is both. We attach greater importance to efficiency than we do to economy.

1878. Let us take the two considerations separately. I should like to have all the evidence possible that the want of control on the part of the Board which you allege has led to inefficiency; secondly, that it has led to want of economy?—If you would send for the correspondence with the Irish Lights Commissioners with regard to the Fastnet Light I should guess—it is only a guess—that you would see exactly what the Boards believe to be their statutory positions. The Lighthouse Boards say that under the Act of Parliament the management is placed by Parliament in their hands and the Board of Trade cannot interfere with their management.

Lack of, leads to want of efficiency,

1879. There is no doubt about this that the initiative of new works cannot come from the Board of Trade?—That is so, Sir.

1880. Do I understand you to argue that the initiative ought to come from the Board of Trade?—Certainly, Sir, I am speaking of the Board of Trade as the direct representative of the payers of the dues. The money is not the money of the Lighthouse Boards.

1881. But we are now on a question of efficiency?—Yes.

1882. You say in your view the present administration is not so efficient as it would be if the Board of Trade had not merely a power of veto on new works, but a power to compel the Lighthouse Authorities to put up new works?—Yes, Sir, if I may explain that. When I refer to the Board of Trade I am only doing so as the direct representative of the payers of dues; as a public department that can be held responsible to the payers of the dues.

1883. But do you consider that the administration would be more efficient if more powers were given to the Board of Trade in the direction of initiation as well as control of expenditure on new works?—Yes, Sir, I say it should have absolute power.

1884. Well, then as to economy?—Well, Sir, as to economy, I can only deal with the figures in the broad, general way I have placed them before you. I can tell you that if the Lighthouse Boards were the directors of a public company, and I was speaking on behalf of the shareholders of the public company, and there had been any such extraordinary increase in the expenditure during the last six years, the accounts would have been referred to a committee of investigation who would have gone all through the books to find out the reasons for this extraordinary increase.

and of economy.

1885. In the case of a public company there is no control except that of the shareholders; in the case of the Lighthouse Authorities there is the control of the Board of Trade, but you contend that the control of the Board of Trade has been wholly inadequate?—It is audit, Sir; it is only a power of audit.

1886. But surely something more than a power of audit is involved when the supervising body can and does call for all the contracts, and no contracts can be entered into without its approval?—The auditor of the public company calls for the contracts and checks the expenditure, but the auditor of the public company cannot question the judgment of the directors; that is outside his province.

1887. The auditor of the public company would see the accounts after the contracts had been entered into?—Yes.

1888. Are you not aware that the Board of Trade sees the contracts before they are entered into?—That is so.

1889. And has a veto upon them?—Yes.

1890. Therefore the position of the Board of Trade is not that of an auditor?—Well, Sir, it may veto them, and if the Lighthouse Board says "We have no other proposal to put forward," the light will go out.

1891. Have you any further observations to make upon that subject?—We say there are no other taxes or dues collected by the State that are administered in any such way. In the present session the House of Commons at the instance of the President of the Board of Trade has deprived the local Marine Boards of all effective control over the Mercantile

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Marine Offices on the ground that it was intolerable that any statutory body not immediately responsible to Parliament should exercise control over offices maintained at the cost of the State.

Constitution of the General Lighthouse Authorities:

1892. I do not think we need go further into that question. Have you any suggestion to offer for the revision of the constitution of the Lighthouse Authorities?—On behalf of the Association I can offer no suggestions for the revision of the constitution of Trinity House. Trinity House has an independent existence, and through its Elder Brethren is possessed of very great political and social power. It is idle to suppose that it will ever alter its constitution so as to make itself either a State department or a body elected by the payers of the light dues.

1893. It would not be in its power to alter its constitution even if it had the will to do so?—Except by going to Parliament, Sir, I suppose.

Objections to,

1894. Yes. As to the Northern Lights Commissioners?—Well, Sir, that is a body constituted by Parliament for the sole purpose of managing the lighthouse service in Scotland. They were first constituted in 1798. A Commissioner to qualify must first become a lawyer. If he succeeds in that profession he may in time be appointed a sheriff, and if he happens to become a sheriff to one of the counties named in the Act of George III. he will be duly qualified to undertake the management of the Northern Lighthouses.

1895. And as to the Irish Board?—Well, Sir, they have only been in existence since 1867. No qualification is required, and it is impossible to imagine a body less representative of either the payers of the dues or of the State.

1896. I think under another name they have a much earlier origin than 1867?—The Port of Dublin Board it was called originally.

1897. (*Mr. Ennis.*) They were under half a dozen different names?—The Port of Dublin Corporation the Irish Lights were originally vested in, and their control come to an end in 1867 when the Irish Lights were first established.

1898. (*Chairman.*) In effect they were a body dating considerably before 1867, whatever that antiquity may be worth?—Yes, Sir, they date from 50 of George III., 1810, Sir, they came into operation.

Expenditure of the General Lighthouse Authorities: Is excessive.

1899. (*Colonel Herbert.*) There is one point on which I do not think you gave the Chairman your views. With regard to this cost of £80,000 per annum with respect to administration, what is the basis of your opinion; on what do you base that?—To spend £80,000 for controlling an expenditure of £420,000 per annum seems extraordinary.

1900. Yes, but that is a mere pious opinion; I was anxious to know a little bit further, and get some idea as to where you think that excess comes in; it would help us in our inquiry.—I have no means, I am afraid, of helping you. My figures are prepared from the figures which are presented each year to Parliament, and the accounts are stated in a most summary form, and there are no details given of this expenditure. I have got accounts here, if you care to refer to them: head office expenses, salaries and allowances, so much; office and house expenses, so much; these are the only two items that are published.

1901. It is merely a general statement, then?—That is so.

Local Lights: Maintenance of, from local funds.

1902. Then you spoke about the Mersey lights, and made a comparison with regard to the port of London. As regards the effect on the shipping interest, how does that comparison apply with reference to other ports—say, the Firth of Forth or the Humber?—They all pay for their local lights. Every port, with the exception of London, pays for the lights which only serve that port. Directly you get off the highway and turn for the port, then all the lights after the turning are maintained by the port at the cost of the port, except in London.

1903. Is that universal—I mean all such interests as that of the Mersey are maintained in the same way, and does the expense fall in the same way on shipowners?—Yes, I believe in every case, except possibly these Trinity out-ports.

1904. Are there not some that are free; where there are no light dues in respect of local light?—No, I know of none.

1905. (*Chairman.*) These out-ports you have mentioned would be instances in point?—I am excepting the out-ports.

1906. (*Colonel Herbert.*) You are excepting the out-ports of the Trinity House, you mean?—You see, under the Merchant Shipping Act the local port authority is bound to keep its expenditure in respect of lighting the port separate from its other expenditure, and the amount it collects in respect of such expenditure has to be kept separate, so that it may satisfy the Board of Trade that it collects no more than is necessary to maintain the lights. That has to be stated as a separate account for the Board of Trade, and I do not think it would be possible to comply with the Act and lump the cost of maintaining the lights into the general charges of the port.

1907. Then your contention is that the port of London is in an exceptional position as regards every other port?—That is so, Sir.

1908. It is the only one in which the lighting expenses are charged on the General Lighthouse Fund?—That is so, Sir, and it was so stated to the Port of London Royal Commission by Captain Vyvyan.

Reconstitution of General Lighthouse Authorities: Suggestions for,

1909. You made a statement with regard to the Trinity House, that you did not think it would either consent to become a department of State or an elected body; would you go a little further and say which of those views you would favour—the lighting authority being a department of State or its being an elected body?—The Association think it should be a department of State; they think the service is a national service, and should be undertaken by the State.

1910. They do not urge that there should be a representative element?—If the service is not to be undertaken by the State, then I do not think the shipowners, as the payers of the dues, would elect such a body as Trinity House as their representatives.

1911. Assuming that the functions of lighting were taken over by the State, the shipowners then would consider they were sufficiently represented in Parliament?—Certainly.

1912. (*Mr. Ennis.*) Perhaps I might just continue Colonel Herbert's subject before taking up the others. With regard to that, when you say you would prefer to see lighthouse administration controlled by the State, would you prefer to see lighthouse administration controlled by the State or by an elected body, assuming the payment of light dues remains precisely as at the present?—By an elected body, Sir.

1913. Does your reply that you would desire to see it controlled by the State imply that you consider that the State ought to pay for it?—Undoubtedly. If you levy the light dues as they are now, then their expenditure should, we contend, be controlled by an elected body; a body elected by the payers.

Liverpool Steamship Owners' Association: Amount of shipping owned by,

1914. I just wanted to get your definite opinion on that point. Well, you say that your Association controls about 21 per cent. of the British steam tonnage afloat?—Yes.

1915. Therefore, I assume, making a very rough calculation, that the total steam tonnage afloat is something like 16,000,000 tons?—Yes.

1916. Can you give us any calculation as to the British sailing tonnage afloat?—16,000,000 will really be our total tonnage.

1917. Sailing and steam?—I have forgotten for the minute what the sail is.

1918. It is not very material?—Sailing ships are dying out, decreasing each year.

1919. I understand that; I just wanted for general information to get a general idea as to how it will compare with the steam tonnage for the present?—I am sorry I cannot remember.

1920. Possibly you will give us the figures later on?—I will, Sir, with pleasure.

Light dues: Amount paid by various classes of vessels.

1921. I am right in assuming, I think, that the total amount of light dues leviable upon any steamer in the year amounts to 1s. 4½d. a ton?—Yes.

1922. And on a sailing vessel to a shilling, I think; is not that so?—Yes.

1923. The figures are something like that, I think; we had the figures before?—A steamer cannot be

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required to pay more than 1s. 4½d. per ton, and no sailing vessel can be required to pay more than 1s. 1½d. in any year.

1924. A difference of 3d.?—Yes.

1925. I should like to ask you a question which I do not expect you to answer accurately, but only a matter of opinion. Assuming a steamer shall not be called upon to pay more than 1s. 4½d., and the other 1s. 1½d., taking the oversea trade of the country as compared with the coasting trade, a coasting vessel plying repeatedly between British and French ports, or British and Irish ports, in the coal trade or a trade of that character, making constant voyages, of necessity will pay her 1s. 1½d. before any extended period passes?—Yes.

1926. Whereas a vessel in the oversea trade, say the San Francisco trade, the New Zealand trade, long voyages of that class, in all probability will not pay the full quota that she may be made to pay?—Yes, I see.

1927. Therefore I should—taking these figures into account—just like to ask your opinion—it can be nothing more than an opinion, I believe—as to whether in proportion to their registered tonnage the coasting trade does not pay a somewhat larger proportion of the total light dues—I do not mean of the total amount of the light dues, I mean in proportion to their tonnage—than the oversea trade?—No, Sir, I think the best answer is the figures I have given you showing the tonnage of the vessels entered in the Liverpool Steam Ship Owners' Association, and the amounts they pay in dues, and you see, Sir, they are practically one-fifth in each case. Of course, from Liverpool, we may be in a special position. All the big Atlantic liners of very big tonnages pay their full 1s. 4½d. in the year, and the amount that is collected in Liverpool from those vessels is very large indeed. Amongst the members of the Association are the owners of all the lines in the Atlantic trade, but there are also all the lines trading to the East, that perhaps only come back to Liverpool three times in the year, and twice in the case of the Australian lines; and we have a great number of the coasters. As far as I could judge when I took out the figures for 1902, the adjustment that was made as between steamships and sailing ships at so much per voyage, with the maxima, have worked out fairly as between the different classes of vessels.

1928. You are of opinion that the 3d. imposed on the steamer, that is what I may call the oversea trade, practically covers the actual difference between that and the coasting trade with regard to the payment of light dues?—Yes, Sir, it is 1d. per ton for the home trade sailing vessels.

1929. I mean the maximum figures, 1s. 4½d. as against 1s. 1½d.—that is a difference of 3d.—and you think that those figures would fairly equalise the position of light dues on both classes of ships, coasting and oversea trade?—I think so.

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1930. Then with regard to different classes of shipping, has it ever come under the notice of your Association, have you heard any complaints from shipmasters or others of an area between the lights established by the General Lighthouse Authority and the local lights established by the Harbour Authority; that is to say, in regard to the lights established in the interests of passing trade by the General Lighthouse Authorities round the coast? Is there any hiatus, as it were, between those lights and the harbour lights which might make great difficulties for shipping? Has any such claim as that been made by shipmasters to your knowledge; that is to say, the kind of area in which the General Lighthouse Authority did not consider it was their duty to put lights, and in which the Harbour Authorities did not consider it was their duty to put up lights?—Yes, Sir, we are brought into that kind of dispute—most years there is a dispute of that kind—whether a light can fairly be put on the General Lighthouse Fund, or whether it is an affair for the Harbour Authority. We are brought into those disputes, since we have had the opportunity of considering the estimates for new works, nearly every year, and that is a matter which is debated.

1931. But do you think that in practice this dispute, or these disputes, going on between the General Lighthouse Authorities and the Harbour Authorities leaves something to be desired in the matter of lighting any areas such as I have described?—No, Sir; I do not think, from the information that has been brought before me, that I could say there has been an unlighted area left in consequence of that kind of dispute.

1932. As you have spoken with regard to the opportunity of considering new works, you refer to the Advisory Committee?—Yes.

Advisory Committee:

1933. I should like to know in what light shipowners generally—your Association and shipowners generally—regard the establishment of this Advisory Committee; whether you regard it as a Committee which efficiently fulfils all that you desire to have in the way of control or in the administration of the lighting of the coasts of the United Kingdom, or whether you consider that it is merely a formal control, that it carries no real power with it, and that it is less than you are entitled to?—I think we regard it as a step, but a very small step, in the right direction. To begin with, our opinion is only asked with regard to the expenditure of about one-fifth of the total expenditure, and the Committee have absolutely no power of pressing their views, except by giving their opinion at meetings which are held annually. They have no separate organisation, no secretary, and no office; they have no powers of making independent investigations; they have to judge on the material which is placed before the Board of Trade by the Lighthouse Boards and from their general knowledge; they have no effective powers of investigation into the expenditure of even the one-fifth of the total upon which they are consulted.

Value.

and Position of,

1934. But I take it also that when special cases arise a communication is made to the Advisory Committee, but that communication is only made in an individual form, a kind of circular or communication addressed to individual members of the Committee?—I think they are only consulted once a year; they are only consulted on the estimates for the new works.

1935. We have been informed that on special occasions communications have been made to the Committee, but from what you say, that they possess no secretary, no means of communication one with the other, that can only mean the opinion of individual members of the Committee.

1936. (*Chairman.*) Is it correct to say they have no secretary? I seem to remember communications sent to me?—From Mr. Cooke, Sir. The Secretary of the Chamber of Shipping sits as their secretary when they have their annual meeting before they go down to the office of the Board of Trade to meet the Board of Trade and Lighthouse Authorities.

Shipowners: Representation on present Lighthouse Authorities not desired by

1937. (*Mr. Ennis.*) If your Association had to-morrow your choice of a continuance of the Advisory Committee or to direct representation on the Lighting Authority by the shipping community, which would you prefer?—I do not think we should take representation on the existing Lighthouse Boards, Sir.

1938. You do not desire that?—No, Sir, I do not think it would be possible to produce a Board which would work harmoniously by adding a few representatives of the payers of dues to the existing Boards, to be in a hopeless minority on those Boards; I do not think we would take that under any circumstances.

1939. I take it that your evidence, taking it in a general sense, means that you are under the impression that the increase in expenditure which has taken place during the periods which you have given us in this table is not justified, and that the cost of administration is out of proportion to the total sum expended upon these services?—That is so.

1940. I think in a broad sense that is your contention?—That is so.

Light Dues: Cause of recent reduction.

1941. But at the same time you are aware, I take it—I am not certain whether it was during the period covered by this return, but within a comparatively recent period—that it is true that the light dues have been reduced by 12½ per cent.?—Yes.

1942. And that a further reduction of 7½ per cent. is contemplated, or has been spoken of?—Yes; but then, on the other hand, you must remember that the tonnage of our ships is constantly increasing, and the entries and clearances from our ports at which the dues are paid is constantly increasing; the reduction has not been made out of economies, as these figures show.

1943. That is, your contention is that the reduction is due altogether to an enormous increase of the tonnage paying these dues?—That is so.

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1944. And that whilst that reduction has been made, you claim that if economies had been effected, which you say can be effected, the reduction might have been still greater.—Oh, very much greater.

1945. And you further claim, I take it, that with regard to this statement of yours as to the port of London—it is not possible for me, looking at the figures here roughly, to arrive at an exact figure—but I take it that the amount of money expended on the lighting of the port of London, taking the expenditure on your own port of Liverpool as a guide, must be something close to £40,000 per annum?—I should think it would be above that; I should think it would be between £40,000 and £50,000.

1946. Assuming £40,000 to be the figure just for the purpose of comparison, you contend, then, that if the lighting of the port of London were paid for by the port of London, that would enable a further reduction of about 10 per cent. in the light dues to be made to the shipping community?—Yes, that is so—in the general dues.

Amount of local light dues paid by Liverpool Steamship Owners' Association.

1947. And may I further ask if you can give us some further information bearing upon this? Would it be possible to arrive at approximate information as to what your Association would roughly pay towards local light dues—towards the light dues of Harbour Authorities, as distinct from the General Lighthouse Authorities?—I could ascertain it, Sir. You mean in the United Kingdom, not elsewhere?

1948. I mean the tonnage represented by your Association. What their annual expenditure on local lights would probably amount to?—Local light dues in the United Kingdom?

1949. Yes. You tell us you expend about £70,000 a year in payments to the General Lighthouse Authority?—Yes.

1950. I should like to have, if it can be given us without any serious difficulty, an approximate figure as to what the cost to your Association would be for local light dues?—To get the actual figure would involve a very great deal of work, analysing the accounts of all the voyages for any particular year. I think I could get you estimates.

1951. Just an approximation?—I think I could get you estimates. Of course, with regard to foreign countries, it is a little difficult, because there they charge no particular item in respect of light dues; but the State——.

1952. Suppose we exclude foreign countries—an approximation as to the amount paid by your Association for local light dues in the United Kingdom during the same year that payments to the General Lighthouse Fund cost £70,000?—Yes.

Expenditure of the General Lighthouse Authorities: Is excessive.

1953. You raised a question about steam vessels kept by the Trinity House, and I understand also by other Authorities?—Yes.

1954. For purposes that you could not admit were necessary?—Yes.

1955. Could you give us any idea—you know the number of lighthouses, I presume, on the coast?—Yes, Sir, I have got it here, Sir; I have not it in my hand at the moment.

1956. Quite so, but you have the figures before you?—Yes.

1957. Can you lay before the Commission any approximate idea as to the figures that you consider would be reasonable for the service of these?—No, Sir, I am afraid we cannot. If we are given the details of the expenditure, and the logs of the boats, showing how they have been employed when in port and when on service, we would be very glad to submit our detailed criticisms, but without the information we could not really submit details.

1958. Then you also question superannuations. You said that £80,000 a year in respect of administration is excessive, but of course of that £80,000 a year, £26,000 is set down as against superannuation allowances?—That, I submit, is cost of administration, you get your salaries lower because of your superannuation allowances.

1959. I just want to get on that, what your idea as to that is. Your idea is that if superannuation amounts to such a sum as this, the salaries in the first instance should be on a lower scale?—Yes.

1960. In other words, that the salary itself should practically bear the cost of superannuation?—That is so, I believe, in all other services.

1961. You say that the light dues amounted to £1,000,000 in excess of the expenditure between 1882 and 1898?—Yes. *Light Dues:* Application of, prior to 1898.

1962. And you have stated in your evidence here that it went in general relief of taxation. Our Chairman questioned that statement, and I am inclined to agree with him; but is what you meant to convey that it went in relief of some taxation, perhaps not general taxation, but that whilst it was not applied to lighthouse purposes, it was applied to Trinity House purposes other than lights; is that what I understand your contention to be?—Yes, Sir; I am afraid I have not made my point very clear on that case.

1963. As I understand your replies to our Chairman, I took you to mean that this million in excess of expenditure on the lighthouse service proper during that period was actually applied to purposes such as pilotage services, and services of that kind; is that so?—Yes, Sir. When the Act of 1882 was passed, there was a statement submitted to the House by Mr. Chamberlain, who was then President of the Board of Trade, showing the position of the Mercantile Marine Fund account. The Secretary to the Treasury explained that, as a relief to shipowners and crews—the seamen—it was proposed to abolish shipping fees, which had brought into the account about £70,000 per annum, partly paid by the seamen and partly paid by the shipowners, and proposed that Parliament should pay into the account such sum as was necessary to keep the account in credit, to enable the account to pay its way, and the Bill was passed on that footing. When the Bill was passed—the Chairman says £40,000; my recollection is £50,000, but no doubt I am wrong—a certain sum was voted by Parliament to be paid into the account to keep it in credit. Now, Sir, from 1882 onwards, Parliament set to work to create new inspectors, new salaries, extra supervision, and such things, all of which they charge against the Fund.

1964. The Mercantile Marine Fund?—The Mercantile Marine Fund. From the time of fixing the £40,000 to be paid out of general taxation into the Fund, Parliament steadily increased the charges on the Fund, and never increased the £40,000. The Treasury did not go to Parliament to have that increased, but through the Board of Trade it increased the light dues, although the amount that was being collected from the light dues was far more than sufficient to pay for the cost of maintaining the lighthouse services.

1965. It was a joint fund at that time?—It was a joint fund at that time.

1966. And they increased the revenue from the Light Fund branch of the service?—Yes.

1967. And did not increase it at the other end to meet the increased expenditure they were incurring under other heads?—That is so, Sir; they made the light dues meet the increased expenditure, instead of going to Parliament to increase the £40,000 that had been voted annually.

1968. Then I take it that your contention means, not quite as you have put it here, that it went in general relief of taxation, but that it went in aid of the Marine Fund, which fund did not pay, and that the amount paid into that Marine Fund was largely in excess of the amount required from the fund for lighthouse purposes?—Perhaps it was not in relief of taxation; it was in the place of taxation.

1969. In any case, your contention is that it went into that fund, and was utilised as a matter of fact for other purposes, and therefore you contend now that as the Act of 1898 provided that the amount of light dues should be expended on lighthouses and lighthouse service only, monies derived from that source, not being applicable to any other service, the incentive to economy from the point of view of the Treasury has largely vanished?—Has vanished absolutely.

1970. You said with regard to the Irish Lights Board that you consider practically—I do not remember your exact words, but they amount to this—that you consider them the worst offenders of all?—That is so, Sir. *Irish Lights Board:* Inefficiency of administration of,

1971. Would you give us some reason for that? I should like to know some details; cases in which you consider the Irish Lights Board have shown a want of business efficiency and proper management of their affairs?—Well, Sir, our great case against the Irish Lights Commission is with regard to the sound signal station on the south-west corner of Ireland.

1972. Is that the Mizen Head?—The Three Castles Head. It is a very dangerous part of the coast. We have ships of the largest size, carrying very large numbers of passengers and crews, of very great value, constantly passing there, and we have over and over again made the strongest representations to the Irish Lights Commissioners as to the absolute necessity of establishing a sound signal station on that place. The necessity has been emphasised by the fact of some of our vessels having got on the rocks there; and, in spite of all this, year after year, they insist that they know better than we do what is necessary. They take up the extraordinary position that if they established a sound signal station there it would take us into danger, and that was their last ground for refusal.

1973. That is that vessels running in from the Atlantic would run into the Mizen Head in the hope of hearing the signal?—To try and make the signal. We wanted it placed in such a position that if it were heard on that bow (*indicating*) the only course was to stand out to sea. It was not like the Fastnet, where a vessel could pass on either side, though in thick weather she should pass outwards. But there are no inducements for getting anyway near where we wanted this sound signal placed; and they persist year after year that they know better what is wanted for the safety of navigation on that point, although all the Atlantic ships pass there.

1974. Are you aware whether any representations were made by the Board of Trade or the Trinity House on that subject?—I believe by both, and I believe they both supported our view.

1975. Do you believe that a correspondence exists on that subject between the bodies you referred to—a correspondence on the Mizen Head sound signal?—I do not know; I believe there must be a correspondence, and now it is provided for in the estimates; after years of work it is now going to be established.

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1976. With regard to the Fastnet, what information can you give us? You have told us that the Irish Lights Commissioners practically defied the Board of Trade with regard to the Fastnet. Can you tell us what the details of the dispute were—what the dispute was about?—Well, with regard to the Fastnet, before wireless telegraphy was introduced, the Liverpool shipowners came to the conclusion that it would be of the greatest importance to put the Fastnet in communication with the mainland, so that vessels could be reported without having to stand in to make the mainland. They took up the question as a matter of business, as it would have facilitated their work, but the main reason was to secure safety. They wished to avoid any inducement to their captains to endeavour to pass between the Irish coast and the Fastnet, so that in anything like thick weather they would always pass outside the Fastnet, reporting from the Fastnet.

1976a. The Irish Lights Commissioners absolutely refused to facilitate in any shape or form that being done?—Well, it was with regard to electrical communication that the trouble was, because there has been some large expenditure in connection with the Fastnet.

1977. We have heard details of that?—Yes.

1977a. But there has been some large expenditure of money there?—Yes.

1978. Was not that in connection with electrical communication?—Yes. We had to satisfy the Board of Trade and we had to satisfy the Admiralty that such a station could be prudently established there. The Admiralty were at one time under the belief that if the lighthouses were used as reporting stations it might be risky in time of war. I believe we satisfied the Board of Trade, I believe we satisfied the Admiralty, and I believe the Trinity House was with us.

1979. You say the Mizen Head is in the estimates for the current year, but you have nothing in the estimates with regard to this?—Well, we have now wireless telegraphy; it is not of the same pressing moment. I forget if the Fastnet is now in communication by wireless telegraphy. We can report our vessels from far out now; but for many years I believe all the Atlantic ships trading from Liverpool were exposed to unnecessary risk through the action of the Irish Lights Commissioners.

1980. Have you been in the habit of making representations to them with regard to lights on other portions of the coast, or are there other portions of the coast of Ireland at present where you consider lights are necessary, and where you have asked the Irish Lights Commissioners to consider them?—I think we have none outstanding now.

1981. None?—I think there are none outstanding at the moment.

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1982. (*Chairman.*) Are there any recommendations that the Advisory Committee have made for new works which have been definitely refused?—No, Sir; I think there are none outstanding now. I think there are none—you mean in favour of new works?

Advisory Committee: Recommendations of, as to New Works.

1983. In favour of new works?—There are a good many recommendations that have been made against new works.

1984. I am speaking of recommendations in favour of new works.

1985. (*Mr. Ennis.*) Do you happen to know whether your Association made representations to the Irish Lights Commissioners with regard to the Barrels Lightship?—No, Sir, I do not recollect. When I say all our points are disposed of I am not quite sure whether there is not an open point with regard to the lighting of Moville.

1986. It is within my own knowledge that this Barrels Lightship was a ship which for many years was needed on the coast of Wexford. Vessels coming up Channel frequently mistook Coningbeg for the Tuskar, and bore up, coming ashore on the coast. Since the Barrels Lightship has been provided that has practically ceased. I can remember numerous wrecks along that coast. I was just anxious to ascertain whether the Irish Lights Commissioners established that lightship on their own initiative, or whether you were instrumental in establishing it?—No, Sir, we were not instrumental.

Constitution of the General Lighthouse Authorities: Is unsatisfactory.

1987. With regard to the Trinity House, the Commissioners of Northern Lighthouses, and the Commissioners of Irish Lights—and I suppose the same applies to all of them—you can offer no sugestions for the revision of the constitution of Trinity House. I suppose that does not imply that you do not consider that it would be very desirable if the constitution of Trinity House were revised?—Well, Sir, we look upon it as if it would be rather a matter of impertinence to suggest that Trinity House, as Trinity House, should alter its constitution. The Trinity House is a very old foundation, and with a very celebrated history behind it, and we have no business to make suggestions in regard to its constitution. Our point is we do not want Trinity House to have power over the management of these lights, and the expenditure of our money.

1988. Quite so; that is to say, in general terms, that you are not satisfied with the present constitution and organisation of any one of the three Lighthouse Authorities round the coast?—That is so.

1989. You take it in a general way; you think that the entire system needs amending?—That is so.

New Works.

1990. (*Admiral Henderson.*) Would not a fixed allowance, as indicated by Lord Courtney's Committee, continued for some time, lead to waste? I mean, if you were to allow each Board a certain fixed sum for new works, lights might not be required in Ireland, and might be very largely required in Scotland, or in England?—I did not understand that Lord Courtney's Committee recommended a fixed allowance. I thought they were getting at the probable expenditure in the future with a view of recommending this new scale of charge, and they had to show that the scale they recommended was sufficient both to provide for the maintenance, and also to provide for all probable new works. I do not think, Sir, it was recommended as a fixed allowance.

Expenditure on, for the last six years.

1991. The increase of 12.8 per cent., which is the increase on maintenance; do you think that a large sum on the total capital sum expended for new works in the period?—Expended on new works £575,117 during those six years.

1992. The total?—The total.

Local Lights: Administration of, by local authorities advocated.

1993. Do you think it would tend to economy and efficiency of administration if, under a new organisation, the cost of lighting of the larger ports was thrown on the General Fund and administered by it?—No, I do not think it would tend either to efficiency or economy. I think the ports manage their own works to the best advantage.

1994. I speak of the larger ports?—Yes.

1995. Supposing there was a general system of lighthouse administration, would there not be very much greater economy in staff and appliances?—Yes, there would be undoubtedly economy in appliances, duplicates, and relief ships and spares, and such things. The bigger the organisation is, the more opportunity the would be for saving under those heads.

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1996. The cost of the Mersey lightage and buoyage is £32,000 approximately, while that of the three Boards, exclusive of new works, is £392,000; that is nearly one-twelfth. Do you know what the percentage is when the number of lighthouses, lightvessels, and buoys, etc., are compared?—No, Sir; I have not worked out any figures, because I do not believe they would afford any real basis for comparison. You cannot compare one lightship with another, and there are not enough of them to arrive at any real basis of average. Local circumstances are so important. The cost of the lightship, the cost of the moorings, the cost of keeping the man there and provisioning the ships, they are all so special to each particular ship, that I think you must get the accounts and analyse them. Of course, if you got the detailed accounts you would at once, for instance, if you ask the Mersey Board to give you their details with regard to cost of building a ship, mooring a ship, manning a ship, provisioning a ship, then you could compare that with the similar items from some other ship. The charges you can compare, and the provisions you can compare, and the system adopted of reliefs, and how often the moorings are changed; all those you can compare, but you have to make adjustments with regard to the local circumstances of the ship or the light.

1997. Reverting to a previous question, the Mersey Board, I believe, control outside lights, what the Trinity House call outside lights?—You mean they claim that Point Lynas is a passing light, and not a local light. I have got a chart of the bay which will show you where we go down to. Here is Liverpool (*indicating*). From here right down to Point Lynas. Point Lynas is the Mersey district; the whole of what is within that line (*indicating*) is treated as the approaches to Liverpool, and the lights, the lightships, and the buoys are all maintained out of our £32,000.

1998. Therefore if you take Liverpool as a centre, it would be economical to administer part of the coast north and south of it under one head?—I think if you got really a very efficient and well-organised local body, that it could administer its own district, and perhaps an extended district; but you would want to know exactly what local bodies you did appoint. I mean, it would not do to have the lighting of the coast administered in a parochial spirit.

Board of Trade control over Lighthouse Authorities: Is inefficient.

1999. You mentioned about the question of Treasury control; now, is not the Board of Trade control just as good?—No, Sir; I think it is no control unless the Board of Trade can direct, give directions with regard to management and control of the lighthouses, as to what is to be done; how they are to be lighted; how they are to be built. I think it exercises no control, although it audits the accounts most carefully.

2000. (*Chairman.*) Has there been any control by the Treasury at any time, in any sense?—No, Sir; the control of the Treasury has been what the lighthouse people have described as "severe pressure," or some such words as those.

2001. (*Admiral Henderson.*) Is it not better to avoid Government control as much as possible, if representation of interests concerned can be secured?—You mean, should we not treat the lighting of the coasts as purely a shipowners' affair, and leave the shipowners to manage it for themselves?

2002. I do not mean that Government control should be done away with altogether, but that Government control should be reduced to a minimum. The tendency is always when you begin Government control to work it to a maximum. The tendency is for Government control to increase, and for the responsibility of the administrative authorities to decrease?—Yes, but my view would be, you have first to decide whether this is a State matter, whether the State is bound to see to the efficient lighting of the coast. The coast is lighted, not only for the British Mercantile Marine, it is lighted for the Royal Navy, and it is lighted for foreign nations. We cannot leave the coast unlighted.

2003. (*Mr. Ennis.*) Fishermen?—Fishermen, yes. If you are going to say this is a matter for the shipowners for the sake of argument, and leave them to maintain it themselves, it is possible the shipowners might place the State in a most unfortunate position for not discharging those duties, having done what they want for their own business purposes.

2004. (*Admiral Henderson.*) I do not mean, of course, to do away with State control in that sense. Do you know what the Board of Trade control is at the present moment over the Lighthouse Boards?—I presume the Board of Trade exercises all powers given to it under the Merchant Shipping Act of 1894. As to how far that is effective, I think, Sir, would be decided if you got the correspondence with the Irish Lights Commissioners.

2005. Can you tell me for certain whether Southampton and Barrow are lit by the Trinity House?—No, I cannot tell you that; they are both what are described as Trinity House out-ports.

Shipowners Principal Association of,

2006. What other associations are there, besides the Liverpool Steamship Owners' Association, that deal with large quantities of tonnage?—The Chamber of Shipping in London represents all the shipowners' associations all round the coast in all ports, with the exception of Liverpool. The Liverpool Association is not a member of the Chamber of Shipping.

2007. Is there any other chamber or association with which you have correspondence or dealings in connection with lighthouse administration?—Oh, yes, constantly, Sir, with the associations all round the coast.

2008. What associations are there principally concerned?—There are two associations in Glasgow, the Clyde Steamship Owners' Association, and the Clyde Sailingship Owners' Association. There is a very powerful association in Newcastle, the North of England. In Hull it is the shipping section, I think, of the Chamber of Commerce, but I could give you a list of the associations. It is a little difficult to recall all their names.

2009. Could you give us a correct list?—I have got a long list here. Those were the shipowners' associations that were interested in promoting a Bill introduced by Mr. McArthur for the abolition of the light dues. I could furnish your Secretary with a copy of that list if that would give you the information you want.

Suggestions for alteration in system of Lighthouse administration.

2010. (*Chairman.*) I understand your Association is not in favour of leaving lighthouse administration in its present hands?—No, Sir, it is not.

2011. Neither is it in favour of entrusting it to a committee of shipowners?—The question is put on the basis of light dues being left as they are, and collected only from merchant ships.

2012. Yes?—Then we should be in favour of its being entrusted to the shipowners.

2013. Supposing on the other hand the State were to undertake the payment which is what you would like best, then you would prefer to see the lighthouse administration in the hands of a Government department?—That is so, Sir, and we should like to have the opportunity of offering suggestions to that department; we should like to be given the chance, in the way of an advisory committee, of making our suggestions.

2014. (*Admiral Henderson.*) That is to say, a standing committee that took all new proposals and additions into consideration?—And the general administration as well.

2015. That met infrequently?—If I might put it in this way, the shipowners would be very glad to assist the State in every way they could, to secure both efficiency and economy.

2016. Have you any suggestions to offer as to how that committee should be described?—No.

2017. Could you give us an idea as to what sort of body you would suggest?—Well, under the Merchant Shipping Bill which is now before Parliament we have been told by the Board of Trade that anything in the nature of an advisory committee must be appointed solely at the discretion of the department, that it would be unconstitutional to give statutory powers to an outside committee which was not answerable to the House of Commons, and that we must leave the selection of these committees entirely to the ministers responsible to the House. I have no doubt, if the selection of the committee were left to the Board of Trade, the shipowners could agree, and the underwriters could agree, and the seamen, as to the names to be submitted to the Board of Trade for the Board of Trade to select from. I do not think there would be any difficulty, and that is, I understand, the procedure that

will be adopted with regard to the advisory committee to be constituted under this present Bill.

2018. Have you any other suggestions to offer as to reorganisation?—No, Sir, we do not know enough, of the accounts, but if you will give us the accounts, Sir——

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2019. (*Mr. Ennis.*) I just wish to ask another question, and it is this: With your large connection with the shipping community, is it your impression that the present lighting of the coast of the United Kingdom, taking it in a general sense, is satisfactory and efficient? I am not speaking of the cost, but I mean of the actual lighting of the coasts; do you regard it as being in a general sense satisfactory and efficient, or do you desire to see improvements effected?—Generally, I should say it was efficient.

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2020. Could you say further whether it is the opinion of the shipping community that the lighting of the coasts of the United Kingdom is as efficient as the lighting of the coasts of France and adjoining countries? Have you ever heard comparisons instituted by shipmasters as to the lighting?—Yes. I have heard comparisons, and one constantly hears the French lights spoken of in terms of great praise; but I believe, Sir, the lighting of the coast, taken as a whole—of course, there are exceptions where it might be improved—I believe it is generally efficiently lighted.

SIXTH DAY.

Wednesday, 5th December 1906

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Mr. Thomas Matthews, called in; and examined.

Matthews: point- nts of,

2021. (*Chairman.*) You are Engineer-in-Chief to the Trinity House?—Yes, Sir.

2022. At what date were you appointed?—On 25th December, 1892.

2023. Previous to that you were already in the Trinity House service?—Yes, Sir.

2024. In what capacity?—As assistant to Sir James Douglass.

2025. You were appointed assistant at what date?—1st December, 1873.

2026. As assistant engineer?—Well, yes, Sir. Of course, I was then a very young man. I was in a smaller capacity; as a junior assistant, I should say.

2027. You have risen through the different grades of the service?—Yes, Sir, right through.

2028. Are you a member of the Institute of Civil Engineers?—Yes, Sir.

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2029. And what has been your experience in the way of construction of lighthouses and shore works?—Well, during the time I was with Sir James Douglass we constructed the Eddystone, reconstructed the Bishop Rock, and many of the shore important stations, and I was connected with him in the general development of lighthouse illuminants, and also through the Board of Trade we constructed the Little Basses, Dondra Head, Barberyn, Minicoy, and many lights in Burma.

2030. There is a list put in?—The list are those which have been constructed since I have been Engineer-in-Chief.

2031. I see. Will you enumerate those places?—Withernsea, Beachy Head, Berry Head, Dungeness High and Low, Foreland, Lundy North and South, Portland Bill, Pendeen, Spurn, St. Mary, Nash, and at present we are constructing Strumble Head. But then, in addition to that, of course, there has been a general improvement of a great many of the old establishments. I mean such as where we have superseded the old form of catoptric apparatus with dioptric apparatus, and where we have installed in some cases an electric light. For instance, when I joined the service the Lizard was a catoptric light; now it is a dioptric light.

ties of, as gineer to inity ouse.

2032. Will you describe to us your duties as Engineer-in-Chief?—My duties are the engineering work in connection with the maintenance of the service, in addition to the lighthouses, the steam vessels, the Blackwall workshops, the buoys and beacons throughout the service, and generally advising the Corporation as to the granting of statutory sanction for new lights, or improvement of lights, to the Scotch and Irish Boards, and also in advising the Board of Trade, and the India Office, the Colonial Office, and the Crown agents. Their lighthouse work all goes through our hands.

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2033. It is your duty to attend meetings of the Trinity House Board?—Not regularly, Sir.

2034. Only when summoned?—Only when summoned, that is, to the Board. As you are probably aware, the Board meetings are on Tuesday, but there are meetings of committees on Tuesdays and Fridays, and those committees I frequently attend.

2035. You attend all meetings of committees?—I should not say all, but a large percentage.

2036. Now, do the committees refer various matters to you for report?—Yes, Sir. All engineering questions that come before the Board for consideration are referred to me for my opinion on reference.

2037. Would the Board take your advice as to whether a particular work was advisable or not?—Yes, Sir.

2038. A particular new work, let us say?—Well, the Board would decide as to the advisability of the construction of a lighthouse, for instance. If you will allow me, may I quote Strumble Head? The Board decided there should be a light at Strumble Head or in the vicinity of Fishguard. Then that was referred to me, and in connection with that it was decided there should be a fog-signal. Then we carried out on the site, and in the vicinity of the site, experiments with a fog-signal, which we use on a lightvessel, which we call the manual fog-signal, which is quite portable, and we move it from point to point on the coast, so as to decide as far as we could the most efficient position for the fog-signal.

2039. But the Board would not refer to you for a report in the first instance as to whether a particular work was or was not desirable?—No, Sir.

2040. Having decided themselves whether a particular work was or was not desirable, they would refer to you all matters connected with engineering questions?—Matters of engineering detail. I always accompany the committee in the selection of sites, and

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give them my opinion, but the Board is mainly responsible for the selection of sites on the experiments which I make.

2041. Then a new work having been decided upon, would it be your business to prepare estimates?—Yes, Sir, my first duty then is to prepare an estimate, which goes into the annual estimates. They go to the Board of Trade, and then after that, if the work is approved by the Board of Trade, a detailed survey is made, together with detailed drawings and estimates of the proposed works.

2042. It would be your business to make the working drawings and specifications in the case of any work which was decided upon?—Quite ; I have brought with me just a print of a set of such drawings as we make, if you should desire to see it.

2043. Yes, I think it would be of interest to the Commission. Then in addition to making the working drawings and specifications, is the correspondence with the contractors carried out through you?—Yes.

2044. You would report upon any tenders?—What follows is this. After approval by the Board of Trade the work would be proceeded with. If it is at all possible we advertise it to public tender, and then the tenders come to me for report, and if we are satisfied that the lowest contractor can carry out the work for the amount of his tender, and his bond is satisfactory, it is let to the lowest contractor. Take, for instance, some work I have in hand for which we did not advertise for tenders. At the present moment I am working on the South Bishop, erecting a new fog-signal. Well, there we save a very large sum of money by carrying out the work ourselves, because all the material must go through Neyland, and the South Bishop is situated about eight miles from land. Then I have the service of one of the Corporation vessels for taking the material to the island. Of course, if it were let to a contractor it would entail a very large cost. On the other hand, we are working at Flatholm, and there the work is let to a contractor.

New Works: Saving effected by erection of, by Trinity House staff.

2045. I presume that it is the Trinity House, subject, of course, to the assent of the Board of Trade, which decides whether a work shall or shall not be carried out by contract?—Well, in the first instance, Sir, I report recommending what course should be taken, and then, if the Board are satisfied that my arguments are reasonable and sound, they would say that it should be done by contract. Sometimes they would agree and sometimes not, but invariably in dealing with rock stations we find it a great advantage to do the work ourselves. Then, again, take the instance of Beachy Head. There we went to tender, and I reported that the tenders were high, and as a result we carried out the work ourselves, and between the lowest tender and the estimate there was a saving of several thousand pounds—I can give you the amount—£5,556.

Beachy Head.

2046. Could you give us the list of the works carried out by yourself and the engineer's staff since you became Engineer-in-Chief?—I can tell you of a great many, Sir.

2047. Can you put in a statement showing what the lowest tender was, and what the actual cost was?—Certainly.

2048. Has experience shown that in every case where the Board undertook the work itself that work was carried out for less than the lowest tender?—Well, I should not like to say in every case, but I believe it is so. At Lundy we did the work ourselves ; we built both the new lighthouses at the North and South ends.

Lundy.

2049. Under the estimate that was sanctioned, but did you seek to obtain tenders?—Not for Lundy.

2050. You did not seek to obtain tenders for Lundy?—No.

2051. Why was that?—For the reason I have explained, that in dealing with Lundy I had the advantage of the Corporation's vessels. In constructing a work at Lundy Island, such as those two stations, you must remember the whole of the material had to be taken to the island with the exception of the stone for the rubble masonry—everything.

2052. But did you make no attempt to obtain tenders at all?—No, Sir, not at Lundy.

2053. You determined before asking for tenders that it would be cheaper to carry out the work yourselves?—Yes, Sir.

2054. And that view was sanctioned by the Board of Trade?—Yes.

2055. Is that the only case in which no tenders were asked for?—No, Sir. No tenders had been asked in the case I have just told you about—the South Bishop.

South Bishop.

2056. Were tenders asked for in the case of Beachy Head?—Yes, the lowest tender, if I remember right, was Sir John Jackson's, and the work was completed for £5,556 under that tender. Again, Sir, we had a work at Gibraltar ; there tenders were invited, and we had a saving under the lowest tender.

2057. Perhaps you will put in a list of the works which have been carried out by the Lighthouse Authority itself, indicating the cases in which tenders have been asked for, and the amount of the lowest tender?—Certainly, Sir.

2058. And the actual cost of the work?—And the actual cost of the work, certainly.

2059. When was the Engineers' Department of Trinity House established?—In 1863, Sir.

Engineer's Department of Trinity House:

2060. What arrangements were in existence prior to that date?—Mr. James Walker was the Engineer, and the work was done by him in the ordinary way of engineering work by fees ; a percentage on the work done.

2061. Like the present Scotch system?—Yes, Sir.

2062. Mr. Walker was in the same position as Mr. Stevenson is now?—Practically in the same position, Sir ; he was appointed in 1858.

2063. And who succeeded Mr. Walker?—Sir James Douglass.

2064. And Sir James Douglass was the first Engineer-in-Chief on the new system?—In the Trinity House. Then the Engineers' Department was formed.

2065. What is the present cost of the staff?—£4,313.

2066. That does not include the cost of the staff for the Engineering works at Blackwall?—No, Sir.

2067. That is independent?—Yes.

Salaries of staff of,

2068. I think the Secretary of the Trinity House put in a statement with respect to the personnel of the engineer's staff, but perhaps you might recapitulate?—My salary as Engineer-in-Chief is £1,000, increasing by annual increments of £50 to £1,500, my present salary being £1,450. The assistant engineer's salary is £400, increasing by £20 per annum to £600—present salary, £540. Chief engineering clerk, £300, increasing by £20 to £500, present salary, £500. Mechanical engineering assistant, £200, increasing by £15 to £400, present salary, £355. Marine engineering assistant, £200, increasing by £15 to £400, present salary £355. Civil constructive assistant, £250, increasing by £15 to £350, present salary, £265. Draughtsman, £225. Assistant clerk, £150, increasing by £15 to £250, present salary, £250. Three junior clerks—one at £100 per annum, increasing by £10 to £180, present salary, £150 ; one at £1 per week, increasing by 5s. to 30s. per week, present salary, £65 ; and one at 15s. per week, increasing by 1s. to 19s. per week, present salary, £44 4s. Messenger, £114, making the total annual cost of the twelve members of the staff as at October, 1906, £4,313 4s.

Cost of work executed by

2069. And what has been the annual cost of works executed on the average?—About £69,000.

2070. From what year is that average calculated?—That is a mean of the last three years.

2071. What proportion of that £69,000 consists of new works?—About £22,000.

2072. And the rest?—The rest is any improvement and upkeep of the service and repairs.

New Works Works included under

2073. When you speak of improvements, are those improvements which would be accounted under the head of new works?—No, Sir ; it would be such an improvement as converting a light from a fixed to occulting, or from fixed to flashing.

2074. Such changes as those would, I think, be technically regarded as new works, and would come before the Advisory Committee, would they not?—No, Sir, not those. You are probably aware we have recently been introducing into the service an incandescent system, a new form of illuminant which I developed about four years since. None of that goes through the Advisory Committee ; it goes through the Board of Trade.

2075. Everything goes to the Board of Trade?—Only

Abstract L (New Works) goes to the Advisory Committee.

2076. Would not the conversion of a light from one type of light to another come under the head of new works?—No, Sir. What has been done is this. About three years ago I developed an illuminant which we called incandescent. That was laid before the Board of Trade, and we had their approval for doing a certain number of stations each year, with the result that we have practically now completed our service, and the result of that has been that, roughly speaking, we have increased the intensity of our lights about three and a half, and we are saving about £2,100 a year on oil, without the cost of conveyance, which, of course, is a very serious item. Take, for instance, the Wolf. On the Wolf we used to consume about 2,500 gallons of oil per annum. Now we are consuming about 600 gallons per annum. Well, all that would have been poured into five-gallon oil drums, which are iron drums for convenience of landing. First of all they have to be taken to the rock by steam vessel, the tender of the district, then they have to be taken by boat to the tower, and then poured from these small drums into the cisterns in the lighthouses, and this, of course, is a very costly item.

2077. But surely there have been cases where stronger lights have been substituted for weaker lights, which have been regarded as new works, and have come before the Advisory Committee?—Yes. I would not say before the Advisory Committee, but certainly they have come specially before the Board of Trade. I do not know if you have in your mind the Nash, but that was an exceptional case. There we had two lighthouses, and we laid out a considerable sum of money, because we removed the old lanterns, and improved the towers as well. Additional quarters were built for the keepers, and the lights were adapted from catoptric to dioptric. If the Advisory Committee had been in existence then that would have come before them, because the expenditure was so large. The Smalls did come before the Advisory Committee.

2078. So it is the fact that certain improvements of lights at all events have been regarded as new works?—Yes, Sir, but no such case as I have been mentioning to you—the change of illuminants.

2079. Will you put in a detailed statement of these new works?—Yes, Sir, certainly.

2080. Showing the cost and character of each?—Yes.

2081. For the three years, distinguishing, of course, between new works and improvements other than new works. Let us have a complete statement of the expenses on the engineering side, giving a detailed analysis of the works executed?—Yes, Sir, I can tell you now what our expenditure is through our Blackwall workshops.

2082. One statement would cover the whole?—Yes, Sir.

Improvements carried recently:

2083. Will you describe to us any improvements in lamps, fog-signals, or otherwise, that have been made since you were Engineer; I think you have already spoken of the incandescent oil burner?—I have explained to you what we are doing about the incandescent oil burner. Would you like me to give you any further details, or shall I pass on to some other improvements?

2084. I think you had better give us the statement which is in your *précis*?—The actual money which we are saving by the introduction of the incandescent system in the value of the oil itself is £2,100 per annum, and the total amount which has been spent to bring that alteration through the service is about £15,000.

Incandescent burner.

2085. Was the incandescent oil burner an invention of your own?—Yes, Sir.

2086. Subsequently adopted by other Lighthouse Authorities?—Yes, Sir, but not on my system. The incandescent system has been followed by the other Lighthouse Authorities, but they have designed rather a different kind of burner.

2087. But the invention was in the first instance due to yourself?—For lighthouse purposes, yes, Sir. And I may say, if I may detain you for a moment, that it has been so successful with us that I am now turning my attention to try, if I can, to design a burner to introduce into the lightships, where, of course, we should have the same result of the saving if I succeed.

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As a matter of fact the burner is now in the experimental stage at Trinity House, and as far as I have gone I think it is very promising. Under the head of improvements we have single lights at the Lizard and the South Foreland. We had two lighthouses, as you are probably aware, at the Foreland and the Lizard, one of which has been done away with at each station, and at the Lizard we have a very powerful flashing light in place of the two fixed lights which were there before. We have been able to dispense with the services of two men at the Lizard.

Electric Light: Stations where used

2088. At which of your lighthouses is electricity used?—At the Lizard.

2089. Is that the only one?—No; we have four. Electricity is used at the Lizard, at the South Foreland, at St. Catherine's, and at Souter Point.

2090. What is your experience of electric light as an illuminant?—On the question of intensity, I presume?

2091. Well, on the question of general efficiency, as compared with oil?—Well, of course it is much more expensive to maintain than oil, and the justification some years ago in going in for electricity was because you could obtain an intensity which it was impossible to obtain by any other form of illuminant. But with the incandescent system we are getting now a greater intensity from oil than had hitherto been possible, and I should say there is not the smallest probability of electricity being extended.

Extension of use of, improbable.

2092. In all future cases the probability is that incandescent oil will take its place?—Until something else is done which in the ordinary way will supersede incandescent oil. I have just been experimenting with what are known as flame carbons for electric lights, of which, of course, I am speaking, and the result of that has been that we have very much improved the lights. We are using these carbons on the South Foreland and at Souter Point, and we have very much improved our lights through that, and no doubt we shall extend the system to the Lizard and St. Catherine's. I may say that I think the lights on the Lizard and St. Catherine's—both of which are of the same intensity, but not quite of the same character; Lizard giving a flash every three seconds, and St. Catherine's every five—are the most intense lights in the world.

Improvement of, due to flame carbons.

2093. Do they exceed the May Island in candle-power?—Yes, Sir.

2094. What is the candle-power at the Lizard?—Well, that I cannot say, Sir, for this reason—that it was a question of debate. The Irish Commissioners have no electric light, but it was a question between Mr. Stevenson and myself as to the proper method of measuring the electric light; and the system which I thought should be adopted would involve such a large expenditure that I advised the Elder Brethren that I did not think it was justified, and I thought it would suit the purpose of the mariner quite as well if we described the Lizard as an electric light of great brilliancy. I am speaking now of the Admiralty list, Sir, and with that view our Scientific Adviser (Lord Rayleigh) agreed.

Use of, in French lighthouses.

2095. What are the most important lights on the French coast—are they electric or incandescent?—I think they have about 13 electric lights, but since the experiments at South Foreland on lighthouse illuminants some years ago, which they had the opportunity of witnessing, they have not largely extended their system of electric lights, and they, as well as ourselves, are introducing the incandescent system of oil.

2096. Is Cape Grisnez lighted with electric light?—Yes, Sir.

2097. The modern tendency, then, is to abandon electric light?—Well, Sir, not to develop it. We should not abandon it for this reason—because if we were to abandon our electric light at St. Catherine's or any of our electric stations, as a matter of fact the change in introducing the new system would involve such an expenditure that we should not be justified. It is cheaper to run it as it is, Sir, because we have all the electric plant there, and it is taken very great care of. I may mention that the boilers at Souter Point and at the Foreland have been working about 32 years, and as far as I can see—I have recently had them opened out and examined—they are as good as the day they were put down.

2098. Have any experiments been made by you or

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other Lighthouse Authorities as regards the fog-penetrating powers of the electric light as compared with other lights?—Yes, Sir; and relatively for candle-power it is not so efficient as the old oil light, but of course it is greater in intensity.

2099. In thick weather that is?—Of course; I am speaking of thick weather. But the intensity you obtain with the electric light is so far beyond what it is possible to obtain with any other light that it is a distinct advantage even in fog. That is why we have been experimenting with the flame carbons, because we get the same intensity, and instead of having the light so white we restore to it some of the yellow and red rays, which are more penetrating in fog than any other colour; and I am experimenting now with the view to tinting mantles for incandescent burners, with the same object.

Advantage of,

2100. On the whole, however, supposing it was a question of putting up a new light at the Lizard, you would not nowadays select electric light for the purpose, but would prefer incandescent oil?—I think so, Sir. May I amplify that by saying that about 15 years since there was a new system introduced of floating dioptric apparatus. Previous to that time all dioptric apparatus had been rotated on rollers, and then the idea was conceived by the French engineers of floating a dioptric apparatus on mercury. The result of that has been that we have much less friction than with rollers, and it is possible to revolve a dioptric apparatus of greater weight than had hitherto been the case at greater speed, which enabled us—when I say "us" I mean the Lighthouse Engineer—to use a panel of greater size in our apparatus than had hitherto been the case, which meant an enormous increase in the intensity, so that with that idea and with the incandescent as an illuminant, if we were now going to put up a new lighthouse at the Lizard or any other station I do not think we should introduce electricity.

Dioptric Apparatus: Introduction of mercury float.

2101. Is the Engineering Department in constant consultation with the Engineering Departments in other parts of the United Kingdom or abroad?—Well, I am in constant touch with the Engineering Department in France.

Trinity House: Communication between and Foreign Lighthouse Authorities.

2102. You are?—Oh, yes, Sir. Monsieur Ribière and myself have been in constant communication ever since I held my present position, and if I succeed in developing anything I always let him know, and he does the same with me. When he comes to London he always calls and sees me to know what we are doing. If I go to Paris, which I do frequently in connection with dioptric apparatus work, I always make a point of calling to ascertain what they are doing.

2103. Are you not in similar communication with the engineers of the Scotch and Irish lights?—Oh yes, of course; but really the other Engineers—for instance, the Engineer of the German Government I know quite well, but with the exception of the Engineers to the French, German, and Swedish Governments, I am not well acquainted with foreign lighthouse engineers. We all exchange ideas, and the Trinity House have lent many of them our incandescent burners for experimental purposes. I have lent the Engineer of the Canadian Lighthouse Authorities one of our burners. They wanted to experiment with it, and we lent them one of our burners, and they have decided to introduce the system into some of the lighthouses in Canada.

2104. Do you co-operate similarly with the Engineer of the United States Lighthouse Authority?—Not to that extent, Sir. They send us copies of their annual reports, and of anything we are doing, if they were to ask, we should supply them with full details.

Fog-signals: Different kinds of, in use.

2105. As to fog-signals, have considerable improvements been introduced into fog-signals of recent years?—Yes, Sir, we have recently been doing mainly with the siren. There are three forms of fog-signals we have in the service. There is first what we call the manual fog-signal, which is a small reed signal which I designed about 12 years since, to supersede what had hitherto been the fog-signal on small inside ships, viz., a gong, a small reed. The fog-signal sounds at a pressure of 2½ to 3 pounds, and it is generally serviceable for a range of about two miles. It has this advantage—that if a ship is standing-in to danger, or in close proximity, the man working the signal can keep it continually in action.

2106. That is worked with compressed air, I suppose?—Yes, Sir.

2107. Do you use explosive fog-signals?—Yes, Sir; but we do not use them if we can avoid it.

Explosive, unsatisfactory on account of cost.

2108. You do not regard them as very satisfactory?—Well, yes, Sir, they are to some extent very satisfactory, but they are very expensive indeed to maintain. In some cases we have had to put an explosive signal where it has been impossible, owing to the character of surrounding signals in that neighbourhood, to introduce anything but an explosive, because, of course, the most important thing is distinctiveness in character. To give you an illustration, Sir, at the present moment we have an explosive fog-signal at Flamborough Head, and it gives one explosion every five minutes, and that costs us to maintain in explosives about £500 a year, and we have had very strong petitions indeed from the owners of passing ships to shorten the period of silence.

2109. (*Sir Frank Adam.*) During fog?—Of course, it is only in action during fog. To bring it down to 2½ minutes would cost us £1,000 per annum.

2110. (*Mr. Ennis.*) From?—It is now every five minutes. We have now gone to the Board of Trade, instead of doing that, for their approval for establishing a siren that will cost us to establish about £4,500, and we shall be able to maintain it with the same staff as at the present establishment, and the annual upkeep of the siren would be, of course, very small indeed, merely the question of oil and stores, not more than about £100 a year, and we could also have the advantage of probably giving the mariner a signal of three or four seconds every half-minute, instead of every 2½ minutes.

2111. (*Chairman.*) Is the siren the most satisfactory signal you possess?—It is for important positions, Sir, but for less important positions we use reed signals.

Experiments with, at St. Catherine's.

2112. I think at one time a series of experiments was undertaken with a view to test the relative merits of sirens and reeds, was there not?—Yes, Sir, at St. Catherine's. The result of those experiments was that the siren fog-signal was pronounced as being the most efficient signal. Approximately speaking, the arc to be recorded by our signals is 180 to 200 degrees horizontal. Our old system was always to direct the mouth of the horn into the wind when a signal was in action, and it occurred to me we should get greater efficiency if we had two horns, each horn having its own siren, automatically connected, so that they should be driven at the same speed, producing exactly the same note, and from experiments we found that a horn would guard about 120 degrees, so that with the two horns we could cover an angle of 240 degrees.

2113. (*Mr. Ennis.*) One at either side?—They would be parted—120 degrees between the axes.

2114. And the interval between them in the direction of the wind?—They are fixed; we never move them at all; and the result of that has been that we found the arc was better guarded, and that is the system that we are working on. Lord Rayleigh agreed with that view, but he gave us a design for a new form of horn, and at the present moment our most approved signal, and the most efficient signal, is with the old form of Trinity House siren, which is five inches in diameter, and is worked at a pressure of 25 lbs. per square inch in Lord Rayleigh's horn—what we call the Rayleigh horn—and that type of signal we have recently established at Whitby and Nash, in the Bristol Channel, and we are now establishing at South Bishop and at Flatholm.

Rayleigh horn.

Areas of silence.

2115. (*Chairman.*) All forms of sirens have hitherto been liable to the defect of zones of silence, have they not?—That is so; but I do not think it is any fault whatever of the siren. That is due to some peculiarity of the district in which the signal is stationed. For instance, we had some experiments at the Skerries off Holyhead. Lord Rayleigh was with the Committee on that occasion, and the result was perfectly satisfactory, excepting that over a certain area we got this arc of silence. Well, we went into the matter very carefully, and we thought we would try and locate exactly the silent area. A day or two afterwards when we came to locate it, the silent area had all gone; the sound was as good there as anywhere else. We have been carrying out experiments with a siren on a lightvessel, and I remember on one occasion the order to the light vessel was that when the steamer was approaching, on a certain signal being hoisted, they would commence their experiments, and we went on. We were about five miles away, and we went on, and suddenly we lost the sound. I thought that something had gone wrong

on board, but when we were about half a mile from the ship we heard the signal as distinctly as possible. It had been sounding the whole time.

2116. You attribute that to local peculiarities?—Yes.

2117. Depending upon differences in the wind and temperature, and so forth?—Yes, Sir. We have been experimenting with signals at St. Catherine's, which we have carried twenty-one miles, and the next day we have carried the same signal two miles, and then lost it for a little, and then picked it up again, and then carried it for eight or ten miles; and perhaps the next day you would experience no sound shadow, and that is the effect you would have with whatever character of signal you are dealing with.

periments h sub- rine nals.

2118. Are you now experimenting with submarine sound signals?—Not at the present moment, but we have been making some experiments, and we have asked statutory sanction of the Board of Trade in next year's estimates for a sum with a view of introducing the system into several of our lightvessels.

2119. So far as they have gone have those experiments been successful?—I should say yes, Sir, most certainly.

2120. Submarine signals could never replace a siren unless all vessels were fitted to receive the signal?—I do not think you could possibly supersede land signals for this reason. At any shore station, it would be necessary to have a buoy or something lying off the station in the water. You could maintain the bell perfectly well with a lightship, but to maintain it from a rock lighthouse, or to maintain it from a place like the Lizard, it would be necessary that the bell be carried from a buoy, and the buoy would have to be connected with the shore by a cable.

2121. But over and above that difficulty would it be necessary for vessels to be specially equipped in order to receive the signal?—They must, Sir. I should not go so far as to say it would be very expensive to equip the receiving ship. There are merely two receivers which are fitted on either side of the ship, close to the skin of the hull, about five or six feet under the surface of the water in the full of the ship as much as possible, and then wires are taken from the receivers to the chart house, or any other place that you like, and attached to an ordinary telephone.

ain Cables:

2122. Have you any observations to make upon the manufacture of chain cables for lightvessels?—Well, Sir, we attach very great importance to that question. The chain cables of the service represent a contract of about £4,500 per annum, and it is let not by public competition, but by inviting selected firms. Our vessels are under a different condition to any other vessel that is moored by cable, because practically it does not so much matter to the other vessel in the case of parting the cable. They have their sails or steam to revert to, but our men have to stand by, and the whole thing depends upon the strength of your cable. What we do is this, Sir, we invite tenders from what we believe are the best firms in England and the Admiralty do practically the same thing, and their specification is almost identical with our own. But our test is different, and it is different in this sense, that we take three four-foot lengths from each three cables, and the samples are sent to our Blackwall workshops, where we have a proving machine of our own, and if the test does not come up to our contract requirements, which is 16 tons per square inch on each side of the link, and the quality of the iron is 23 tons per square inch, we reject the three cables. The Admiralty take three links from each length (there are seven lengths to a cable), but if there is a fault what they do is they reject the single length from which the sample was taken and accept the other lengths.

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2123. Yours is a stricter test than that which is required by the Admiralty?—Well, why we have done it is this: it is to secure as far as we possibly can the very best men in the factory, because you will readily see from what I have stated to you as being the case that the fine on the manufacturer is so heavy that if one man is better than another his tendency will be to put him on the Trinity work? Would you like me to give you the names of the firms?

2124. I think it is hardly necessary; you might tell us the number of firms who are invited to tender?—We go to four, and sometimes six. I can tell you the names, but I should not like them to be made public.

2125. I do not think it is necessary for us to ask for that?—No, Sir.

2126. Is there much difference between the tenders sent in by these different firms?—No, Sir, not much.

2127. They are all approximately the same?—Well, very nearly, Sir; very near indeed. It would be no use going to the smaller men, because they could not possibly fulfil our requirements, and it is of the utmost importance, I assure you, to do all that we possibly can. You see, it gives the men in the ships such confidence. Take the vessel, for instance, riding at the Seven Stones; it is of the utmost importance to do all that you can for the men to be quite satisfied.

2128. Does it often happen that the cables supplied fail to pass the tests?—No, Sir, I should not say it often happens; of course, we do have rejections. Under the present contract, curiously enough, we had our last test this month, and it has been most satisfactory, but still we have had during the three years several rejections.

Cases of parting of,

2129. (*Colonel Herbert.*) Have you ever had cases of failure of cables on ships?—Yes, we have had cases where vessels have parted.

2130. Have those been frequent?—No, Sir, we use all the precautions we possibly can—and we keep a man in the factory who inspects every link—still, the strength of the cable when you have finished with it and done your best is its weakest link, and that weakest link perhaps has merely passed the Board of Trade test, because, as you are probably aware, all the cables have to pass through the Board of Trade machine; and the tests, of which I have been speaking to you, made by ourselves, with our own machines, are done after the Board of Trade have passed them.

2131. (*Chairman.*) Where the cables have actually failed in use, has that been through some defect in the cable or because the cable itself was not strong enough?—A defect in the cable, Sir.

2132. It was a defect in the cable?—We have succeeded in most cases in obtaining the defective link; perhaps it came up with the end of the chain, Sir, and it invariably would be in the well.

2133. Have these failures caused disasters?—Only in one case, Sir, since I have been in the service, and that was a vessel off the Selker, near Whitehaven.

2134. Did the cable part in a storm on that occasion?—Yes, Sir, and the vessel came ashore on the sands close at Selker. Every case is submitted and reported on to the Board, and we could give you a return if you wish it, but I should think that it would be of not more than a dozen cases during my recollection.

2135. In which cables have parted?—Where cables have parted, and the case of which I told you is the only time, I think, on which a vessel has gone ashore.

2136. What happened in the other cases?—Of course, they are all fitted with stand-by anchors, Sir. They would slip their stand-by anchor, and sometimes what really has happened is this, that the chain itself has brought the ship up. Supposing it is an outlying ship, and the weather is such that you could not see the land, he would not know that she had parted until night time, when he could see his lights.

2137. Were lives lost in the disaster at Whitehaven?—No, Sir.

Blackwall Workshops:

2138. Will you tell us what work is carried on at the engineering workshops at Blackwall?—The engineering workshops at Blackwall are generally occupied in the maintenance of the service as much as possible. The main object of the shops is to have a staff of mechanics who are available for the upkeep of the service—that is having men at our disposal for going to the stations in the event of any breakdown of machinery or in connection with the fog-signals or the lights. And then, again, you are aware that we have a staff of steam vessels in the service, and at the shops we keep men to act as engineers in case of sickness or in the case of leave of the engineers of the vessels, and we repair the machinery of the vessels in the vicinity of London. At the present time we have the "Satellite," at the Blackwall workshop—that is the vessel from Harwich.

Work done at,

2139. Are you satisfied that you can execute all these repairs at less cost at Blackwall than they would involve if they were done by private firms?—I am, Sir. We do not do any new works at Blackwall that I can possibly avoid, excepting, of course, I am compelled to have a certain amount of work there to keep the men

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employed when they return from the out-stations. Our average number of men at Blackwall is about 150. Sometimes we have over 30 men out, and that they will come home, and, of course, when they come home you must have a certain amount of work in the shops to keep them employed. The new work in connection with the Smalls we are doing at Blackwall, with the exception of the dioptric apparatus, because it is not a straightforward work in which you can make detailed drawings and specification and get tenders.

2140. You mean that your object is to keep the number of men in employment as steady as possible, and there are occasions, therefore, when you are obliged to put them to work which you would not execute at all otherwise, or which you would execute in other ways?—It would be executed in other ways.

2141. Notwithstanding that difficulty, you are convinced that the works at Blackwall effect an economy in the service?—I do not see how we could carry on the service without them.

2142. Without a workshop as extensive as that at Blackwall?—Yes, Sir. I study economy in every possible way that I can in connection with the shops both in stores and materials, and our system of inviting tenders for materials and stores, and so on. We invite quarterly tenders for all stores that we use in the Department. Here are the forms of tender that we issue, and the competing firms fill in their prices under each article. (*Form exhibited.*) When these come in they are analysed, and we send to the shops to let them know from which of the firms they are to purchase the various articles for three months.

Cost and annual output of,

2143. Will you state the annual cost of the official staff at Blackwall?—£1,484.

2144. And the total yearly output?—£28,000.

2145. That official staff is outside of the staff of the Engineer-in-Chief which you have already described to us?—Yes, Sir; it is under the control of the Engineer's Department in the House.

Work done at,

2146. What does it consist of, the official staff at Blackwall?—There is a Superintendent of Works, and an assistant superintendent and three clerks, four storekeepers and an engine driver—that is for the motive power running the machinery—and a messenger. I should like to say, in addition to what I have already said, that we have a proving station in connection with our Blackwall shops, where all materials that are used in the service are dealt with, chain cables and all steel, iron plates, all cement, and every kind of ropes, and so on; they are all tested there. Then we have there a very small gasworks, where we make the gas for the buoy and beacon illumination of the service. There is the repairing of the cables—that is all done at the shops, and as I have said before, the machinery of the steam vessels, viz., those of the London district and from Harwich and Ramsgate. The machinery is repaired there. Outside vessels we send to the nearest engineering firm of their district. For instance, we have a vessel at the present moment, the "Triton," from Holyhead, at Clover and Clayton's dock at Liverpool; she went there yesterday; she will be there probably about 10 days.

Experiments: On Illuminants.

2147. You have mentioned experiments in connection with fog-signals; do you carry out experiments in any other direction for the general improvement of apparatus?—In illuminants. I am working, as I explained to you, on an experiment at the moment with the incandescent system, and I am also working with acetylene gas and with catoptric apparatus with floating lights.

Cost of,

2148. How much have you spent on an average annually on experiments?—About £500 a year. In 1901-2 we spent £923, in 1902-3 £753, in 1903-4 £247, in 1904-5 £266, and in 1905-6 £426. That would be about £500 a year.

2149. Do you consider it would be advisable to spend more money in carrying out experiments than you do now?—I do not think we could very well do so with the staff at my disposal. You were speaking just now of the French system. The Engineer and staff in France, which is considerably larger than my own, have nothing whatever to do with lighthouse construction excepting the lanterns, dioptric or catoptric apparatus, as the case may be, and the burners, etc., with fog-signals. The lighthouses themselves and the dwelling houses and the general upkeep of the service are under another Department.

2150. Does the Engineer's staff in France spend large sums in experiments, do you happen to be aware?—Yes, Sir, I should say so, but I should like you to distinctly understand that although I believe that that is so, I do not think that lighthouse illumination in France is in advance of the lighthouses in England. I am sure the coast of England is lit and guarded by fog-signals as efficiently as any coast in the world. I realise that this is a very important statement to make, but that is so.

2151. I think you stated that the French Engineering staff would communicate the results of any experiments to you?—They would, yes.

2152. You mutually benefit by each other's experiments?—We do. That is what I was going to say. M. Ribière and myself are in close communication with each other, and if he had anything in view that he thought would be of advantage, or I should feel an interest in, he would let me know. For instance, the last time I was in Paris I saw him and told him what I had been doing with the flame carbons, and since that date they have introduced them at Calais. I merely mention that in order to show you how we are working together.

Engineering Department of Trinity House: Work done by, for Government Departments

2153. Does the Engineering staff give assistance to the Colonial Office and the India Office, and the Admiralty, if necessary, where required?—Yes, Sir.

2154. And the Board of Trade?—Yes, Sir. I believe with regard to the Admiralty all the works in connection with the new works at Gibraltar and at Portland and at Dover have passed through our hands, and it is only this last week that I was reporting to my Board on the contemplated improvement of the lights at Malta.

2155. How is anything that is done in the way of designing or obtaining apparatus for the Colonial Office or the India Office paid for?—Do you mean for engineering fees, or do you mean the apparatus itself?

2156. Either engineering fees or otherwise?—At first the routine is this: we report, make them recommendations, and after a certain time they indent, probably through the Trinity House, for the supply of the apparatus which has been suggested in that report. Then we should obtain tenders for the apparatus, and it would be sent through the Trinity House, and the Trinity House would pay the accounts in connection with it, and obtain the money through the Crown Agents, the Colonial Office, or the India Office, as the case may be, once in every three months.

2157. Are fees paid for the Engineer's reports?—On those invoices?

2158. Let us say the Colonial Office or the Admiralty ask for advice from the Trinity House, and you are requested to write a report in consequence, and make suggestions, is that report paid for?—No, Sir.

2159. That is part of the ordinary service?—Nothing is paid for that, but if the suggestions in the report are carried out and actual work is done, they pay me a fee of 2½ per cent. on the value of the work which I pass.

2160. That would be in addition to your salary?—Yes, Sir; that would average about £150 a year, and approximately one quarter of that I give to the gentlemen in my department.

2161. (*Sir Frank Adam.*) The Lighthouse Authority is out of pocket nothing in connection with this?—Nothing whatever.

Age for superannuation.

2162. (*Colonel Herbert.*) With regard to your own appointment, is there any term of superannuation?—Yes, Sir, the same superannuation as Civil Service servants.

2163. What is the age?—The ordinary age is 65, I think. I am sorry to say I cannot tell you much about that. I mean that it has not exercised my mind in any way, because I believe if I go on till I am 60 years of age I shall be entitled to my maximum pension.

2164. Exactly; but with regard to the whole Department?—65.

2165. The whole of the Engineer's Department staff is on the Civil Service superannuation scale?—Not all; seven are on the permanent establishment.

Allocation of duties of,

2166. You gave us the particulars of the personnel of your department; could you give me some more particulars as to the manner in which the duties are allocated, because you have very various duties?—Yes, Sir. The Chief Assistant is a Civil Engineer, and his work principally is in connection with civil engineering work—that is the construction of the lighthouses themselves, the towers, and the dwellings, and fog-signal buildings and the approaches—in the case of Strumble Head we have a bridge connecting the mainland with the island—and the general upkeep of the service. The duty of the Chief Mechanical Engineer is more particularly in connection with fog-signal machinery and the designing of fog-signal machinery. The duty of the Marine Engineer, who holds a first-class Board of Trade certificate, is the maintenance more particularly of the steam vessels. I have tried and I have succeeded in improving the system under which our vessels have been maintained and their machinery. We have a log, which I thought, perhaps, if it is not troubling you too much, you would like to see. It is issued to each of those vessels and shows what she is doing.

2167. I think that is getting a little bit away from the subject I am on at present.—This is the engineering log of the "Mermaid." The logs are sent to the Trinity House, and we keep a register of these quarterly statements, checking them as to their consumption of all the stores, mileage done, and so on.

2168. The point I was on chiefly was to see what is the general organisation of the Department into sub-branches or departments, and I understand you have a department for buildings, one for marine engineering and one that deals with the stationary lights and so on. That would be a sort of general distribution of the work?—Yes, it would, but it is all one department.

2169. One department under you?—Yes, that is the way the work is distributed; what you have stated.

2170. In fact you exercise a general supervision over these; and the other gentlemen whom you have mentioned here, I suppose are in charge of the various departments?—That is so.

2171. Is there any power of expansion in your system; supposing you were called upon to take on extra duties, could your present staff extend their duties, or are they doing as much as ever they can?—Yes, we are.

Blackwall Workshops: Necessity for extension of gasworks at,

2172. With regard to Blackwall, I would ask you the same question; the power of Blackwall is about limited to what it is doing now?—Yes, it is. I would like, if I may, to say this; we laid a proposal before the Board of Trade this year for some new power plant, because we want to get more out of our machinery if we can, which we could do if we had more power. What I had in my mind was to utilise the present power of plant and boilers at the shops in connection with our gas works, which we must extend because our gas buoy and gas beacon system is so much extending that we must have some more gas producing plant to meet it, for we find in actual practice there is a great advantage in having a plant of our own; we can produce the gas so much cheaper than we can buy it.

2173. Must that all be concentrated at Blackwall, or could not gas be produced at other parts of the coast?—If we produced it ourselves at other parts of the coast, we should have to establish gas works, and have men there to look after them. What we have done is this—because we think it best in the outlying districts—we purchase gas of the railway companies. For instance, we have recently established an unwatched light at Berry Head near Torquay, and the illuminant is gas, and we purchase the gas from the Great Western Railway at Exeter, because we save the difference of carriage between London and Exeter; but, on the other hand, we pay them a little more for it than we could produce it for ourselves.

2174. That is the point I was directing my remarks to.—But it is cheaper to do it in that way, than it would be to rail it from London.

2175. Then at the branches, are any of your employees interchangeable, your engineering staff and the Blackwall staff, or are they entirely separate?—The gentlemen in my department at the Trinity House are interchangeable. I mean, for instance, the mechanical engineer is sometimes working on work in connection with steam vessels, and sometimes the marine engineer is working on iron work in connection with lighthouses.

2176. Then the personnel of the steam vessels; are they again a separate branch, or do they come under you?—They come under the Lights Committee of the Trinity House. Any question whatever in connection with machinery passes through me, but their pay and their control are under the superintendent of the district through the Lights Committee of the Trinity House. Their appointment is made on my recommendation, from men selected from the mechanics in the workshops at Blackwall.

Steam-vessels:

2177. Would the engineers employed in those vessels come under you; are they under your control?—No, Sir, and yet to a certain extent they are. The engineers of a vessel must be under the direct control of the master of the ship, but we have a detailed report from every engineer in the service every week as to the condition of the machinery of his vessel, and if there is anything in that report which I consider requires explanation or dealing with at once, I write to him, because it is a technical matter.

Weekly reports of engineers of,

2178. Therefore, for technical matters, they do come under you?—Exactly, and the tendency of the Lights Committee and of the authorities is to assist me in that.

2179. (*Sir Frank Adam.*) Where does the marine engineer come in then?—Those matters would go through his hands. All those reports go through his hands. For instance, the marine engineer, to whom I have referred, is in Liverpool to-day. The "Triton" was docked yesterday afternoon, and he went down to Liverpool last night. He will to-day go over the repairs. We have a contract with Clover and Clayton at schedule rate. The marine engineer will go over the work on board that vessel to-day, and be back in town to-morrow, and then the detailed letter will go to Clover and Clayton as to what they are to do. I get a report every week from the engineer of the ship, who is on board and in charge. He issues an order for any stores that are required from Clover and Clayton, and he checks the time sheets of the men daily.

Interchange of information with Foreign Lighthouse Authorities.

2180. (*Colonel Herbert.*) You have stated that there is a tendency towards an interchange between authorities, both in this country and in foreign countries?—There is.

2181. But there is no systematised international exchange?—No, none.

2182. Therefore, the relations to which you referred just now between yourself and the head of the French service are purely personal?—Quite, but the desire of the Elder Brethren of the Trinity House is to encourage that.

2183. Exactly, and being purely personal, no doubt they are far more valuable than any official ones?—That is so.

2184. But in the event of any break occurring in these personal relations, it might not be immediately taken up in the same way?—That is so.

2185. In your Department you have nothing that corresponds to what we should call, in the military or naval sense, an Intelligence Department?—No.

2186. For collating or collecting information on those establishments?—Nothing whatever.

2187. And you are entirely dependent upon your own personal exertions in collecting the information as to what is going on elsewhere?—Quite.

2188. There are no Consular reports, are there, of that sort, that deal with this point?—Well, the French Authorities invariably invite us to all exhibitions, and in connection with those exhibitions they write long descriptive pamphlets of what they are exhibiting. For instance, take Milan; they exhibited very largely there, and M. Ribière wrote a detailed statement of what they were exhibiting. At the Congress last year at St. Louis they did the same thing, and I also wrote.

2189. There are International Congresses on this particular subject?—Yes; M. Ribière wrote a paper which was read at St. Louis, and I also wrote a paper which was read before the same Congress.

2190. But do you think it would be a valuable addition to your service, and an aid in your duties, to have a branch specially charged with the duty of keeping up to date the information of what is going on?—I do not, Sir; not so long as the good relations exist which obtain at the present moment between the Lighthouse Authorities of England and other nations; I do not think it would be justified; I do not think there is sufficient work to demand it—not for a department to be formed, I mean.

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2191. Of course, it might be a very small one?—I do not think so, Sir.

2192. I mean, as a means of bridging over that breach which might occur, in the event of the personal relations not being just what they are at present?—I quite see your point, but you must remember that whatever has been done, a description always appears in the papers—I mean in engineering papers—and we get it at the institutions, and so on. If I thought such an arrangement desirable, I would bring the idea before my Board.

2193. Do you think your work could be developed in any way by international agreement; has that ever occurred to you?—I do not see in what direction it could be. I believe, as I stated just now, that our coast at the present time is the best lit, and the best guarded by fog-signals. I do not mean to say there is no room for improvement by introducing more lights or more fog-signals, but I think that our lights are certainly of the greatest brilliancy of any that there are in existence, and I am sure that our fog-signals are as good as, and probably better than, any fog-signals in existence.

2194. You would recognise that there should be an equal efficiency all over the world for the good of the public?—Of course; what I say in reply to that is, that the French authorities, the Canadian authorities, and the Germans, know what we are doing; they have had copies of our drawings, and also full information about our gas-buoy system.

New works: Initiation of,

2195. Now, with regard to the initiation of new works; you have stated what is done when it is decided to establish a new work, but how are the new works initiated? What is the first step; as far as you know does it come from local bodies, or the shipping interest, or where does it come from?—Largely from the shipping interests, Sir, by petitions to the Trinity House, or to the Lighthouse Authority of the district with which the proposed light is concerned. They will have petitions pointing out the advantage of establishing a light or a fog-signal in a certain position, and that has been so in connection with what I have told you as to the fog-signal at Flamborough. That was a very strong shipping representation that it was necessary to improve the fog-signal.

Advisory Committee: Limitation of duties of,

2196. The Advisory Committee, which represents the shipping interest, only comes in, you told us, with certain limitations?—New works, Sir.

2197. Entirely with regard to new works of a particular class; that is entirely new works?—Entirely new works, but the Chairman was quite right in the correction he made with regard to Smalls. That was considered, I presume, by the Board of Trade, owing to the amount sufficient to justify it placing it in Abstract L. Abstract L is new works, and it is on Abstract L only that they consider.

2198. (*Sir Frank Adam.*) The Advisory Committee?—The Advisory Committee.

2199. (*Colonel Herbert.*) I may take it the Advisory Committee is consulted on all cases where it is considered that the shipping interest is very seriously affected?—Quite. For instance, you will find in this year's estimates before the Board of Trade that what I have been speaking to you about—Flamborough Head, the Strumble Head, and the other stations—will be laid before them.

Illuminants: Relative advantage of electric light and incandescent oil.

2200. (*Mr. Ennis.*) You have told us with regard to electric lighting that the intensity of the electric light is so much greater than the intensity of any other form of illuminant, that although the rays—red and yellow—which I think you said you obtained by the incandescent system of oil lighting, are produced, yet the electric light is able to penetrate through a fog to a greater distance?—That is so.

2201. Arising out of that—it being important that it should so penetrate—I should like to ask you, assuming the question of cost did not enter into your calculations at all—cost was a matter of indifference—which would you select: electric lights that you have on the Lizard, Foreland, St. Catherine's and Souter Point, or the best incandescent light that you have, assuming that cost was no factor in the question?—The position in which the light was to be established would have a very great influence on that question, and the character of the light which you could establish in the position selected; and I will tell you why, Sir. Now, for instance, you take St. Catherine's or the Lizard; those are both land fall lights. We have had it reported to us, after the establishment of the Lizard and St. Catherine's, which was about two years ago, when they were altered, the Elder Brethren took steps to obtain the opinions of men coming home crossing the bay, and we have had cases reported where those lights have been seen, not the light, the beam of the light passing over your head, 70 or 80 miles off.

2202. The lights from the Lizard and St. Catherine's Point?—Yes, those are land fall lights. If you had to establish a light in such a position as that, and the question of cost was under consideration, that is a very important point.

2203. In that case you would select the electric light?—Well, on the other hand, as I tried to explain to you just now, owing to the introduction of larger panels you get much greater intensity now by the incandescent system than it has been possible hitherto to get. And then it would be a question for the Lighthouse Authority to decide as to whether they would consider the expenditure of adopting the electric light system over the incandescent oil was justifiable for the additional number of miles which they would get in the beam.

2204. I understand that, but then my question is, assume cost were to be obliterated from your calculation altogether, that you had your choice and you had not to pay for it—a matter of choice between the two lights without consideration of cost—would you consider the electric light the more important of the two for these land fall lights?—It would have greater intensity. But I am speaking as a Lighthouse Engineer, and that would be a question for the Board, not for me to decide. The Elder Brethren, the Nautical Board, decide that a light is desirable or not in a certain position, and then the position of the Lighthouse Engineer is to say, "I can give you in that position lights of the following character at a given cost," and then it is for the Lighthouse Authority to state which of those characters and intensities they consider that the position demands.

2205. As I understand your evidence, there has been a considerable advance in incandescent lighting; you have made yourself a very considerable advance in that direction?—Yes, that is so, Sir.

2206. And there has also been an advance in electric lighting by the flame carbon system?—Yes, that is so.

2207. At the present moment, at the point at which both systems have arrived—without taking into consideration what the future may bring forth—the electric light gives greater intensity?—Absolutely.

Difference between French and English methods of calculating intensity of,

2208. Could you give us any figure as to what you estimate to be the highest candle power light you have of the incandescent system on the coast of the United Kingdom; we have figures of the electric light elsewhere?—Well, if I am to make a statement on that I should like to say there is a great deal of difference between us and the French authorities on the system of calculating the intensity.

2209. You have said that, and I bear it in mind; you have said you are not satisfied with the system?—If you are to use those figures, I should like to explain that in a very few words, if I may. The lights in France are calculated on a formula that all lights were calculated on for many years, and the experiments to which the Chairman has referred as being carried out at South Foreland some years ago in lighthouse illuminants, were really to some extent to clear up that point, as to whether the formula was sound or not. We found from the photometric measurements which were taken from the actual beams of the lights themselves, that the calculation which the French people have been using is much too high, and from the date of these experiments to the present time we have always calculated our lights from the photometric measurements which were taken there.

2210. Could you give us any idea of the percentage of difference?—My point is this, that the French authorities, you will find, say that the intensity of the light at Cap de la Hève is about 19,000,000 candles. Well, I have told them that I do not know what the intensity of our electric lights is.

2211. Is that at Grisnez?—The French Authorities say the intensity of the light at Grisnez is 29,000,000 candles; but whatever it is, ours is greater.

2212. (*Chairman.*) At the Lizard?—At the Lizard and at St. Catherine's Point. Then naturally you say, "How do you know it is greater?" Well, it is greater for this reason, Sir, that the dipotric apparatus which we have is very much larger, the voltage of the current which we are putting through the carbon is greater, and the carbon we are using is larger.

2213. (*Mr. Ennis.*) This is the flame carbon?—Well, no, it is not.

2214. The flame carbon is only in the experimental stage?—It is only in the experimental stage till we see the result. We have a lightship, "Swin Middle," at the entrance to the Thames.

2215. But before we leave the other point, could you just give me your calculation on the photometric experiments made at the Foreland, when you arrived at the conclusion as to the highest?—Of the oil light?

2216. Yes; on your highest oil light?—The Bishop Rock 622,750 candles. The light at the Round Island, Scilly Isles, which is red flashing—there is a possibility of that being changed to white, and if that is done it would be over 1,000,000 candles. Just a moment; as an illustration we have a lightship at the entrance to the Thames, the "Swin Middle," which has a dioptric apparatus; and the French authorities have a lightship in Sandettié which has just an identical apparatus. Now, the intensity they give of that light is 33,000, and the intensity we give is 25,000; that is, the difference between 25,000 and 33,000.

2217. There is a difference of about 33 per cent. on your calculations?—Yes; which, of course, when you come to deal with these very large intensities, is very large.

2218. Can you give us any rough idea as to the length of coast line—the French coast line—for lighting purposes, as compared with the English?—No, Sir, but I will put it in if you allow me. As compared with the English coast?

2219. As compared with the English coast; that is to say, with the line which your Board controls?—Yes.*

2220. Because, assuming that the electric light is the most powerful light, assuming that other considerations had not to be taken into account, and that it is the most powerful light, we have four electric lights on the English coast?—Five, Sir, on the English coast; four under the control of the Trinity House, and one under the control of the Scotch Board.

2221. I am not taking the Scotch into account?—Four of ours.

2222. The Lizard, South Foreland, St. Catherine's, and Souter Point?—Yes.

2223. As against thirteen on the French coast, including Cape Grisnez?—Yes, that is so.

Motive power at electric stations.

2224. I am anxious to get as much information on the electric light as possible. How do you provide the motive power for your electric light; in these stations what is the motive power—an oil engine, or what?—At the Lizard the motive power originally was caloric engines, because we could not get water, and it was before the days of oil engines; electricity was established at the Lizard about thirty years ago.

2225. Are they caloric engines now?—Well, there were three; one which broke down has been replaced by an oil engine, with the idea of ultimately working the station by oil engines. In addition to that we have a siren fog-signal, and we work that with two horns on the system I have already explained. Then at St. Catherine's we have a portable boiler and engine combined—steam, on the Robey system. At the South Foreland we have two Cornish boilers, and two horizontal engines which were established when the light was first introduced, about 35 years ago, and Holmes' old magneto machine.

2226. What horse-power do you require for the motive power in each of these stations?—Well, Sir, at the Lizard the engines are ten and fifteen horse-power respectively.

2227. And I assume you have considerable accumulator batteries?—No, Sir, none.

2228. You drive direct?—We drive direct at the Lizard; we have De Meriten's magneto machine, and we have the same machines running now as were put down at the establishment when it was first lit up.

2229. I was going to ask you a question, but your answer makes that unnecessary. If you had an accumulator service, of course, an accumulator service is the most expensive part of an electric light installation?—Quite.

2230. The life would not be more than ten years?—Quite.

2231. You dispense with that part of the cost?—Entirely, because our men must be on watch through the night, and when they are in the engine room there is communication between the lanterns and the engine room by speaking tubes.

2232. So that you have no necessity for ——?—No necessity whatever.

2233. But in the event of any breakdown in the machinery, you have spare machinery?—We have it in duplicate.

2234. So that you can harness on another engine if one breaks down?—It is driven by counter-shafting; we can drive any other machine from either engine.

Vertical beam not projected upwards by French electric lights

2235. While making this comparison—I am very glad to hear you say our system is so perfect—is it true that in the French lighthouses they have a system in the larger lighthouses of projecting a vertical beam upwards?—No, Sir, it is not true.

2236. We have been told by shipmasters that it is?—If you will allow me, I will explain it to you.

2237. As to what you said just now about the beam of light over your head, I have been told with regard to that, that it is a vertical beam, and that where there is a low lying bank of fog it enables ships at a distance to locate the position of the lighthouse?—You will see in an instant how they would be wrong. If you could always have cloud conditions at a certain elevation that might be useful, but inasmuch as that is impossible, and they are always varying, you could not design a beam of light to meet those requirements. What has happened is this, that if you will assume that that is the surface of the sea—(*indicating*)—there is a light there, and its geographical range is that. That beam of light is sent out horizontally. Very well, a man is there, and he is coming up for that light, and what he sees is that beam of light passing over his head horizontally, and that is what has led to the belief that it is a vertical beam of light, because it has the appearance, Sir, of the spokes of a wheel. You can readily imagine that passing over your head, a very powerful flash every five seconds, and in the case of the Lizard every three seconds.

2238. I am very glad I asked you the question, because shipmasters are not engineering experts, but they give you information which may be, from their point of view, correct, but which you explain now is not in actual practice at the French Lighthouse Department?—You may take it from me, from the intercourse which takes place between M. Ribière and myself, that such a thing is not in existence, because I have often talked to him about it.

New works: Construction of Strumble Head Light.

2239. You have given us the figures with regard to new works, and as you have promised a return I do not need to ask you anything on that point. How long has the Strumble Head Light been erected?—It is now in course of formation.

2240. It is not ready yet. I have passed a couple of times in the night, and what I have seen is the old light?—No, Sir, that is a light which has been established by the Great Western Railway people.

2241. As a temporary measure?—As a temporary measure.

Supervision of, executed by Trinity House staff.

2242. You spoke also with regard to effecting economies by carrying out work yourself, instead of by contract; have you a permanent staff of artisans in your employ; I mean have you a permanent staff of masons, carpenters, and men of that kind?—The only permanent staff of carpenters we have is at our works at Blackwall.

2243. Do you utilise these men for new buildings?—No, they are utilised as foremen sometimes for small works, but we have in our service a staff of resident superintendents of works.

2244. That is, clerks of works?—Clerks of works.

2245. Who will be placed in charge of jobs you do yourselves?—That is so. For instance, at the South Bishop we have a resident superintendent of works, and the masons, and carpenters, and smiths, and so on, that have constructed that work, have been men whom he has picked up in Wales, the nearest point to the place

* *Note.*—The witness subsequently sent in the following figures:—
Length of English coastline (Scotland and Ireland excluded), 2,317 miles.
Length of French coastline, 2,970 miles.

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where they were working, but the mechanic and his assistant, who are entering the fog-signal machinery, are two of the permanent mechanics from the Blackwall workshops. I am speaking now of the machinery only; that is, they are men who must have a knowledge of fog-signalling machinery.

Lightkeepers' Dwellings: Erection of,

2246. Would it come within your province at all, or would it be a different department of the Trinity House establishment, the building of lighthouse-keepers' dwelling-houses?—That comes through mine; I am responsible for them.

2247. Well, do they chiefly erect those dwellings by contract?—Yes, if possible.

2248. I suppose you have considered the question very carefully? They are generally erected in rather inaccessible positions—that is, positions generally distant from a town?—Always.

2249. And distant from good roads?—We have four stations only that are in the vicinity of the town; one is at Lowestoft, one is at Withernsea, one is at Southwold, and the fourth at Dovercourt.

Steam-Vessels: Work of,

2250. Have you taken the matter into consideration whether a staff of your own, and the service of your own steamers for delivering the building materials necessary in these cases, would be a saving on the contract work?—Well, the best answer I can give to that is the lighthouse that is being built at Strumble Head.

2251. I would just like to put it in this way to you; you have given us evidence about a considerable saving in the lighting, £2,100 per annum, in the case of oil. That does not seem to bear on this question, but indirectly it does in this way. You formerly used 2,200 gallons of oil for the lighthouses, you told us, and 600 gallons of oil you only need to use since you adopted the incandescent light?—That was only at one station. That varies enormously. For instance, at the Bishop Rock, at Scilly, we used to consume—I do not know exactly—but approximately about 8,000 gallons. Now we are burning there probably about 2,000 gallons.

2252. Well, I am only concerned with the fact that there is a very large diminution in the quantity of oil used?—Exactly.

2253. And consequently a very large reduction in the quantity of oil that wants to be carried by your steamers?—Certainly; that is an important point.

2254. In view of this great reduction in the quantity of oil—one of the chief articles you have to carry—may I ask whether there would be a possibility of reducing your fleet of steamers, and coupled with the question I am now asking you, whether the work of carrying materials for buildings erected by staffs of your own could be substituted for the work which has now been taken off their shoulders by reason of the shortage of the oil that needs to be carried? That is, that you would find employment for steamers who now find their duties lessened by reason of these oil-carrying conditions, in carrying materials; whether you could effect economies in that direction?—I think our Secretary has promised a return of the steam vessels with their employment. I added to that a statement showing exactly what they have done, and now we have embraced in the statement which he is sending you the information which is here, which will give you an idea exactly of the amount of work that each vessel does per annum. That is rather a difficult question to answer, Sir, because there is no doubt that by the introduction of our incandescent system the work on the steam vessels, to some considerable extent, has been lessened.

2255. (*Chairman.*) Since what date has this saving in oil been effected?—Well, the first burners were introduced about three years since, and each year we have converted about twenty establishments, and, as I have already told you, I hope to extend that.

2256. (*Mr. Ennis.*) This system is being extended, and its consequences are being extended?—Yes. Before that reduction began the work of our steamers had been very much increasing. That was especially so with some of the vessels in the London district, because the gas buoy illumination is very largely extending; we are always laying down additional gas buoys, and that involves a great deal of work on the steam vessels of the service. I do not think you could reduce the number of the vessels for this reason, again, that that would mean interfering with the area of the various districts—the superintendents.

2257. I simply put the matter to you for consideration, whether you might by direct labour, and by direct work on these lines, effect an economy?—Yes, Sir.

2258. In view of less work for the steamers?—Yes. Might I reply to part of your question with regard to Strumble Head? That is a case where to land materials from a vessel, considerable expenditure would be involved to make a landing quay, and so on, to get the materials on to the island, and we came to the conclution after going into the matter very closely, that the money which would be expended on the construction of a landing quay would be better expended on the construction of a bridge.

2259. Between the island and the mainland?—Between the island and the mainland, so as to join the station to the mainland, rather than laying out the expenditure on a landing quay, and thus couple with it the loss of time which often occurs in going to a station when they cannot land because they could only land there at high water.

Beachy Head Saving effected by erection of lighthouse by Trinity House staff.

2260. You have told us that a saving had been effected of £5,556 in the case of the contract of Sir John Jackson?—No, Sir, what I said was this, that a saving had been made of that amount of £5,556 on the lowest tender which we received from Sir John Jackson, but I did the work myself.

2261. Oh, yes, I quite understand that?—Certainly.

2262. But the only question I wanted to ask you was, in order to enable me to size up for myself the value of that illustration, what was the amount of the tender upon which you saved £5,000?—The total value of the works was about—£56,000.

2263. That is, you saved practically 10 per cent.?—Exactly so.

2264. Otherwise I did not know what that meant.—Precisely, Sir.

2265. That was a saving of 10 per cent. by doing the work yourself?—I will give you the exact figures. Had the lowest tender for Beachy Head been accepted, the total cost of the work would have been £61,284, and the actual cost of the work was £56,268.

2266. (*Chairman.*) We shall have all these details in the statement which you have undertaken to put in?—Very well, Sir.

Areas of silence of fog signals:

2267. (*Mr. Ennis.*) Well, I gather from what you have told us—it is a question which has occupied our attention before—with regard to fog siren signals, and to the area of silence, as I understand your evidence, that you have actually found, tested, and arrived at the conclusion that, from some conditions which you have not been able precisely to define, these areas of silence do occur?—Quite.

2268. And furthermore, your attention was directed to it by evidence given in the case of the "Montagu" at Lundy. My attention was directed to that fact in the first instance by that evidence, but I now gather from you a further piece of information, that the area of silence is not a constant quantity?—Quite.

Variableness of,

2269. That there may be an area of silence to-day in a particular locality, and it may not be there to-morrow?—Quite.

2270. And secondly, that, whilst you know that these areas of silence do occur, you are not able yet to locate the reason for them occurring?—That is so.

2271. And you are not able to provide against their occurring?—No.

2272. And the shipping of the kingdom, which depends upon fog-signals, have to contend with that difficulty?—They have.

2273. That they may get into an area of silence which it is not within your power, as far as your present knowledge goes, to avoid?—That is so.

2274. And for that reason anything in the nature of experiments which might be undertaken on submarine fog-signals, or any other form of experiment which would tend to eliminate that danger from the mariner's life, would be a very important matter?—Quite.

2275. And you would be in favour of any reasonable expenditure that might be incurred, which you considered would be incurred judiciously, for the purpose of solving that problem?—Certainly, Sir.

2276. Because I notice from your evidence also—I am quite sure what you are saying is true—that practically the lighthouse service in England is better than anywhere, that the service is as effective as in any other country, but it seems from what you have told

us, that the French Government or the French Lighthouse Authorities are more liberal in their expenditure of money on experiments?—That is so.

riments: 2277. And furthermore, that the staff of France is larger than that of England?—Yes, Sir, for experimental purposes.

2278. Quite so, and I await the information with regard to the length of the French coast line for lighting purposes, but if they have a larger staff for a coast line which is smaller, or not in excess of ours, it follows that the French people are willing to expend more money in that direction than we seem to have been?—I think you will find their coast line is considerably more than ours, and, not only that, they do the work of the local lighting, which we do not.

tvessels : *ttended,* 2279. Quite so; I understand that. Have you made any experiments also on the automatic lightships—are they in existence in the area controlled by the Trinity House? If not, I take it you have knowledge of them, because are there not some in Scotland?—I should say not, Sir; there are gas buoys in Scotland.

2280. But lightvessels?—No, Sir, the Scotch Authorities have only one lightvessel—the North Carr—and that is illuminated by—I do not know the number—several small dioptric apparatus slung round a ring round the mast with oil burners.

2281. Have experiments been made?—Do you refer to the Otter Rock?

2282. I do not know the precise locality?—They have gas buoys.

(*Chairman.*) I think Mr. Ennis refers to unattended lightships.

2283. (*Mr. Ennis.*) Unattended lightships?—The smallest lightvessel we have is the Swin Middle, where we have a very small crew, and that is a gas light, with a dioptric apparatus.

2283a. What is the crew?—There are four men.

2284. While we are on the subject of lightvessels, could you give us the dimensions of the lightvessels on your coast for comparison, say, with our Irish lightvessels?—Yes, Sir.

2285. And the number of crew, and the wages of the crew?—I can give that, Sir.

2286. It will be sufficient if you put it in?—I have a statement here which I have prepared, showing the particulars of our lightvessels, with their fog-signals, the number of their crews, and so on.

2287. That would be very interesting, but what I was anxious to ascertain was, whether with an automatic lightvessel or boat with the new gas arrangement it is possible to provide something more efficient than a buoy; something that would carry its light at the masthead?—Yes.

2288. And that can be established in position at less important stations without the cost of crew?—That is a point we are experimenting with at the present moment, and we contemplate—as a matter of fact we have gone to the Board of Trade for sanction this year for a larger gas buoy than has hitherto been constructed with that idea, but there is a very important point, you know, about that in dealing with the question in actual service, and it is this. It is of the greatest importance to us, if we possibly can, to handle these buoys on our vessels, so we take them aboard in bad weather, and place them below deck. That is of the greatest importance. I think, Sir, that the point really, if you will allow me, that is in your mind, as to a lightship or lightbuoy turns again on the question of intensity, because, if the position in which you wish to place your light is such that a man has a light of a certain intensity, then you can only produce it from a flashing or revolving light, and it would not be prudent, at least, as far as my knowledge goes, to introduce a revolving lens into an unwatched light. You could produce a light on a buoy or a ship with a fixed lens, because you could produce the character of that light by valves, just turning on and off the gas, but that is a very different thing from what you would have to do if you had to rotate the lens, because it is when the lens is rotating only that you can obtain a greater intensity.

2289. My question was not really with regard to an important unattended light; it referred to what I may call the border light between the local authorities, the Harbour Authorities, and the Coast Lighting Authorities?—Yes.

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2290. Because it seems to me from information we have received, and from my own personal observation, that there is such an area in many places, that there is an area which the Harbour Authorities have not the power to light, and which the Coast Authorities do not consider useful for general navigation, and yet which if lighted by an intermediate light between the system of lights of the Coast Authorities, and the system of lights of the Harbour Authorities, might be made useful to shipping seeking the harbour?—We have a considerable number of our buoys now having an intensity of 50 candles, and we have a lantern which I developed some years ago, which is capable of being put on a buoy, which will give an intensity of 130 candles. Well, you might say, "Why not put it on the buoys?" Then you have to consider the amount of work on your vessels, because the one apparatus consumes a foot of gas per hour, and the other consumes 2½ feet of gas per hour, so that the Elder Brethren in considering the question say, "We will put in that position a buoy of a certain intensity."

2291. But would not a lightvessel properly moored—a very small lightvessel which would require no attendance—be safer from accident or danger from being parted from her position than a buoy would be?—No, Sir, I do not think there is the slightest advantage in a gas boat beyond a buoy, excepting the capacity of the gas, the period for which the ship will run without recharging.

Type of anchor used for, 2292. You have spoken of cases in which lightvessels have parted their cables. You have spoken of the importance of cables, which I quite agree with. May I ask what is the type of anchor you use on all your lightvessels? Is it the mushroom type?—That does not really go through my department, but I think it is the Martin. We formerly used the mushroom, but with some of our larger vessels we have been using the Martin anchor.

2293. You have told us that in the case of the vessel running ashore there was no loss of life, but do you know a case where a vessel's cables held, but she went down at her moorings, for example Daunts Rock?—No, never. I remember that case.

2294. I believe it was understood at the time that that disaster was ascribed to the studding of the steel mast giving way, and the mast going by the board, and taking some of the deck with it?—Yes, Sir, it was.

Fog-signals: Cost of Flamborough Head,

2295. I do not need to go much into the distance off Flamborough Head that you can hear an explosive signal, as compared with the fog siren signal, but after all the difference would not be very large, because if you spend £500 per annum on this, and if to avoid that £500 per annum, or at least in lieu of it, you have to spend £4,500—the interest on that——?—3 per cent.

2296. You get money so cheap; if you take £100 per annum for oil and so on, and take depreciation, reasonable wear and tear and depreciation of the apparatus, the saving is not such a large one, but you will be able to make the signal for 2½ minutes, in place of every 5?—No; if you will allow me, Sir, I think the point is this: the desire is to change the character of the signal, and if you change it from 5 minutes to 2½ it is £1,000 not £500 as an explosive. If you keep it as an explosive fog-signal, you will spend £650 per annum more than you will if you convert it to a siren, and debit your siren with the 3 per cent.

2297. That is if you increase the intervals to 2½ instead of 5 minutes?—We must do that, we could not let it go on as 5.

Blackwall workshops: Number of men employed at,

2298. You stated the total number of men in the Blackwall works is 150. Is that the total number, because you spoke to Colonel Herbert of a man going out to do work, and coming back? Are the 150 all in the works at the same time, or is there an additional staff beyond the 150 who are permanent in the works?—No, Sir; what I mean by our 150 men is that is our Blackwall wages sheet; that includes our men in and out.

2299. You have a certain percentage in the works, and a certain percentage at out-work?—Yes. Last night, for instance, there was a telegram. The engineer of our vessel at Penzance was ill, and he sent a medical certificate. A man had to go down there last night. That man is a qualified marine engineer, and holds a marine engineer's certificate.

2300. Of course, you do not interfere with the local

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Harbour Authorities in the lighting of their harbours, beyond supervision?—They have to submit to the Trinity House every proposal when establishing a light for statutory sanction as to character.

Local Lights:

2301. But I mean, beyond having to supervise that they do their work properly, and having to sanction their proposals, that is all that you wish with regard to local authorities generally?—Yes.

Maintenance of Thames lights.

2302. Now, with regard to the port of London. Who lights the port of London?—The Trinity House.

2303. The buoys and beacons?—All these beacon lights on either side of the Thames are under the jurisdiction of the Trinity House. They are unwatched beacon lights.

2304. But would not these lights up to Tilbury ordinarily be looked upon as lights within the meaning of the Harbour Authority?—I am afraid I could not reply to that, Sir. They are all unwatched beacon lights from our lighthouse at Maplin right up, and gas buoys.

2305. The expenditure on those and gas buoys up to that point is borne by the Trinity House?—By the Trinity House.

2306. (*Admiral Henderson.*) Many of the questions I shall ask you touch upon points which have been raised before, I want to know can you tell me what is the average annual amount of money expended for minor improvements and alterations which you were talking about at the beginning of your evidence?—I am afraid not, but that will be in the Return which I have promised.

2307. How is that sum obtained: is it submitted in the regular way, the same as everything else?—Yes.

2308. For the specified purpose to the Board of Trade?—Yes, for the specified purpose to the Board of Trade all expenditure is detailed, and we get their sanction before we proceed.

Incandescent oil burner: Introduction of,

2309. Now, as to the question of the incandescent oil-burner, was that first introduced by the Trinity House or by the Scotch Board?—By the Trinity House, Sir.

2310. All the Boards of the United Kingdom have taken advantage of that, have they not?—Yes, but I think I explained that the system in the Scotch lighthouses and in the Irish is not the Trinity system, but it is the same principle. The burner is of rather different construction.

2311. All the improvements that you mentioned about the lightvessels and that sort of thing have also been adopted by the other Boards, have they not?—Yes, Sir; I have also mentioned in the case of the Scotch Commissioners, they have one lightvessel only, the North Carr, and it is not very important, and it is now lit on the same system as it was originally, many, many years ago, but the Irish lights have what was known as the two-wick Trinity House concentric burner, in 21-inch reflectors, on the Trinity House system.

Intercourse between the General Lighthouse Authorities.

2312. Is there any consultation between the three Boards, and a determination as to what is really the most efficient and economical form of optical apparatus?—No, Sir.

2313. There is no work together of that sort really?—No, there is not.

2314. What I understand is that it is just by correspondence between the Engineers, who discuss those questions amongst themselves?—Scarcely that, Sir. What takes place is that the Lighthouse Authority communicate with the Trinity House, and ask for statutory sanction to exhibit a light of a certain character, and then if in our opinion there is not sufficient information in that letter for us to form an opinion, we write them and ask them to give us replies to questions, in which we ask for details of the construction of the dioptric apparatus, the illuminant, and the details of the estimate of expenditure, which they always supply; and sometimes the site is visited by a Committee of the Elder Brethren.

2315. Do you use gas engines anywhere?—Yes, Sir, but to a very small extent. You are speaking, I take it, of coal gas?

2316. Yes, coal gas engines?—Yes; that is they have to be limited because of the difficulty of supply. Where we can get them we do so.

2317. Have you attempted any experiments on the use of suction gas plant?—We are now going to introduce that as a power plant at Blackwall.

2318. You are?—Yes.

2319. Suction gas?—Suction gas, yes. I have been investigating the best means of power plant, and that is what I recommended my Board to adopt.

Gas-buoys: Refilling of,

2320. You were speaking just now about gas buoys. How often does a gas buoy require refilling, those that you are making now, the most recent?—A buoy would probably maintain a light for from two-and-a-half months to three months.

2321. That is the average buoy?—Yes, but I should like to qualify that in this way as to what really takes place. When our vessels go out on service they would take with them transport receivers—that is, holders of gas—on their deck filled with gas.

2322. That is the lightvessels?—No, Sir, steam tenders; and on their way back to the depôt, or if they are in the vicinity of buoys, even if the buoy is not empty, they call and fill it.

2323. They make economical use of their voyage?—Yes, the boats have to embrace the opportunity of smooth water, because you want smooth water, but the buoys will maintain the light for from two-and-a-half to three months.

Seamarks: System of repairing,

2324. You are conversant with the Scotch system of repairs?—Well, not in detail, but I know approximately how the work is done.

2325. Is it your practice to have each light annually overhauled?—No, Sir.

2326. Can you give the definite number of mechanics who are sent out yearly and the cost of their travelling expenses?—Yes, Sir, certainly.

2327. If you have not promised to produce it, will you produce it?—Certainly, if it is your wish, Sir.

2328. Is not the cost of labour of this sort very great?—Yes, Sir.

2329. And their travelling expenses?—Yes, Sir.

2330. Because we have it in evidence already from the Scotch Board that they actually maintain the whole of their apparatus in working order by three men doing eight months' work?—Well, of course, their number is not really as great as ours, and they have only one lightship.

2331. I do not think the number of actual lights varies very greatly except as far as lightvessels, and that is enormous?—That is so, Sir.

2332. But, still, that does not bear any comparison with the figures which you have given us roughly. You only repair when things are reported as requiring repair?—We have many instances of mechanics not being at the station for two and three years, and in the case of fog-signal stations not for three or four years.

2333. It is not the cost of this labour, it is the travelling expense that is very great?—Well, it is very considerable; if you will pardon me, Sir, I have not in any way attempted to give you that account. I gathered rather from what you said, bearing in mind the largeness of the amount which I have stated, that you thought I had already made a statement as to the amount expended on that work annually.

2334. No, I asked whether you had or not?—I have not, but I will; I will let you have a statement.

2335. Can you give me any idea what the actual cost of transport of the material that you have to send to and from the Blackwall works and the various lighthouses and stations amounts to?—No, I could not.

2336. Is it shown anywhere?—No, it is not.

2337. But it must amount to a very considerable item?—I take it you mean in the Corporation's vessels?

2338. I take it you employ 150 men at Blackwall?—Yes.

2339. And when you send a man to a district lighthouse or lightship, perhaps some part of the optical apparatus or other machinery has to be brought back for repair to the shop?—You shall have that.

2340. You will give us that?—But I cannot give you the cost of conveying the mechanic from the shop to the lightship when he is on one of the Corporation's vessels, nor can I give you the cost of conveying the material.

2341. (*Sir Frank Adam.*) Everything that you have to pay for?—Everything that we have to pay for.

2342. (*Admiral Henderson.*) Now does it not mean, taking the cost of transport of material, that if everything is sent from the various outlying stations to Blackwall, that the cost of transport is very much enhanced?—Nothing is sent to Blackwall that I can possibly avoid. Take for instance—because it is a very important point—supposing we have a lightship in Milford under repair, and there is some part of the machinery which requires repairs which must go through a shop. Very well, until quite recently we had an arrangement with the Great Western Railway people, that they allowed us to execute those repairs in their shops at Neyland, and they charged us the net cost. We have the same arrangement at Holyhead with the London and North Western. Now the Great Western have left Neyland, and now we have asked the Admiralty to kindly allow us to have the same arrangement with them, and we are now doing those repairs in the Pembroke Dockyard, because that saves both ways. It saves the carriage and it saves the men's time.

2342a. Therefore it is correct for me to say that if you take all the work that is done in the far distant stations, it is done locally wherever arrangements can be made?—Yes, Sir.

2343. It is not sent to Blackwall?—No, Sir, it is done by a Blackwall mechanic. If we had a vessel into Pembroke Dock that comes in after being, say, seven years upon her station, which is the time, then the mechanic will go down from London, and he overhauls the lantern, optical apparatus, or fog-signal machinery, after it has been inspected by an official from my department, and detailed instructions sent by me in writing. Then such portions of the machinery as require repairs, which must go through a shop, say through a blacksmith, or through a turner, or whatever it may be, would go to Pembroke Dock. We can do it there; at Harwich, we can do it there.

2344. Then your man will put it together again when it is finished?—Certainly.

2345. He remains there until it is done in that dockyard?—He goes on with other work while it is being done at the dockyard, and then it is re-erected on board the ship.

2346. (*Sir Frank Adam.*) On board the ship?—On board the ship, because that saves the towage to London.

2347. (*Admiral Henderson.*) Do you think that on the whole the system you pursue is the most economical that can be done?—I do, Sir.

2348. Is all the gas that you use in the service made at Blackwall?—No, Sir.

2349. Have you any other gas-making stations?—No, Sir, but we purchase from the railway companies at the nearest place at which our buoy is located.

2350. Do you send gas round to the west coast?—No, Sir.

2351. Can you give the limits within which you distribute gas from Blackwall?—Well, we deliver gas approximately, from Blackwall, over the whole district between Ramsgate and Harwich. Then for Yarmouth district we get the gas from the Great Eastern Railway Company. The Yarmouth buoys extend to Pakefield Gatway. Gas for the Isle of Wight we get through the South-Western Railway Company. Then further west we get it from the Great Western Railway Company. Then when we come down to theWelsh coast, we get it from the London and North-Western Railway Company.

2352. That is sufficient for me, what you only supply from Blackwall. Can you give the number of days that each of the steamers has been laid up for repairs annually?—That is in the statement which the Secretary is returning.

2353. And the cost of the repairs; that will be shown in the statement?—And the cost, Sir.

2354. Do you lend assistance to the other Boards at all?—Yes, Sir, in plant.

2355. I would say in a more general way, but I am speaking more particularly in your department, do you give them assistance and advice?—Yes, Sir.

2356. Have they asked for it?—Oh, certainly, and we should lend anything. As a matter of fact sometimes we have done so both to the Scotch and to the Irish Commissioners; actual plant. At the present moment we are just lending to the Irish Commissioners a buoy for Rosslare.

2357. But do you lend them any of your most recent plant?—Oh, everything they desire.

2358. To compare?—Yes, Sir, everything desired.

2359. And you acquaint them with the results of your experiments?—Yes, Sir.

2360. Do you take any joint action about experiments?—Yes, both the Scotch and Irish Commissioners took action in connection with the fog-signal experiments, and the Engineers were present at the fog-signal experiments at St. Catherine's.

2361. Have you compared directly the engineering cost of the three different establishments?—No, Sir, I have no means of doing so.

2362. I mean the cost of lighthouses particularly, maintenance of buoys and different houses and the vessels, and maintenance and repairs?—No, Sir.

2363. You have never made any attempt to see whether one Board has worked more economically than another?—I have not done so.

2364. And do not know that it has been done?—I do not know that it has been done.

2365. It has never been brought to your notice that it has been done?—No.

Lightvessels: Repairing of.

2366. I think you have answered these questions, but just looking over your district I want to know whether the lightvessels that are on the out-stations—I mean to say the Milford and the Penzance district, and so forth—are repaired locally; they are not brought to Blackwall?—No, Sir, there is no place at Penzance where we can deal with them; they would go to Neyland, Sir.

2367. And then those that are up north go to Liverpool, I suppose, or some other place up north?—No, we have no lightvessels further north than the Spurn.

2368. I am not speaking of the east coast, I am speaking of the west coast now?—Then those vessels would all go to Neyland.

2369. That is in the Irish Sea?—Well, the Irish Commissioners; of course, I am only speaking of our own service.

2370. You have one in Cardigan Bay; I do not know what is the most northern of these?—Selker, Sir, and then we have the Bahama Bank off the Isle of Man. Well, she goes to Neyland; the steam vessels at Neyland would fetch her.

2371. How far north of the Thames do the lightvessels come into Blackwall works for repair?—Well, Sir, that would depend entirely on the extent of the repairs. Assuming that a vessel on a station has good fog-signal machinery, and a good illuminating apparatus, she would go to Harwich, because the shipwright's work is done very much cheaper in Harwich than we can do at London; and then the small amount of repair in my department we should do through our mechanics from London to Harwich.

2372. Send them up?—Yes, as in a case quite recently, they had to condemn a pair of caloric engines in a lightship, No. 62, and fit her with oil engines. Well, that involved considerable expenditure, and then we towed her to London, because we should save money. We got her by the side of our shops and cranes.

New Works: Contemplated by Trinity House.

2373. Is there now any really very urgent new work for the Trinity House to undertake?—At the present moment?

2374. Yes?—We are building a new lighthouse at Strumble Head.

2375. I am speaking in general terms. Is there very important new work to be undertaken on the coast of England and Wales?—Those that we have in the estimates for next year are the most important that I could mention.

2376. Beyond, when these are completed?—Yes, Sir, we want to improve, if we can, the lights in St. George's Channel, to correspond with what we have done in the English Channel. We have had petitions from the shipping interest expressing their pleasure with what was being done in the English Channel, and hoping that the Elder Brethren would do the same in St. George's Channel, and it has been the desire of the Elder Brethren to do so.

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2377. Is the cost of your department increasing or diminishing?—It has been increasing, Sir.

2378. And the whole of the work not put out to contract is done by your own departmental people?—Yes.

Engineer's Department: System of accounting or work done by,

2379. Are the charges of such works shown anywhere?—Yes, Sir.

2380. Supposing that you undertake to build a lighthouse, are all the departmental charges put into this new work?—You mean separated to that particular work?

2381. Separated.—No.

2382. I mean that you say you are able to construct a lighthouse at a very much less rate than the lowest tender?—In certain positions, Sir.

2383. Now, I want to know whether the various departmental charges, the charges for work that is done by the Trinity House as a whole, are added to the cost of this new work or not?—I am afraid not.

2384. And they are therefore, of course, not abstracted from the estimate of new work?—I am afraid not. Might I ask to have the opportunity of correcting that if I am wrong, because I should like to verify that?

2385. What you are talking about just now is your plant; you have the use of the Trinity House plant; the steamers, for instance, your own and your engineer's and foremen's services. Now, is the cost of that put on to the cost of the new work and subtracted from the Trinity House vote, because that would make a great difference in the saving of £5,000? If it were spread over the period of three years of construction of a large lighthouse it would make a very great deal of difference if you put in the value of the departmental time?—I believe, Sir, the answer I have given you is correct, but you have been kind enough to say that I may correct it.

2386. When constructing works by your own staff you have the use of the Board's steamers and plant?—Yes, Sir.

2387. If so, is any charge made, and you said no by anticipation?—Quite so.

2388. If you employ the Board's steamers—I think this is a question that was touched on by Colonel Herbert—if you are able to use the Board's steamers for new construction work, does it not show that they are not on the whole fully employed for all their time?—Well, Sir, what has actually taken place this season? I have been using for my department the "Siren," which is a vessel at Neyland, and she has not been able to do some work which it is her duty to do in the ordinary way, and those duties have been obliged to be divided.

2389. Postponed?—No, Sir, not postponed, because it means shifting lightvessels to new moorings; new buoys, and so on.

2390. You then had to hire?—No, Sir, it has been done by placing more work on the vessel at Cardiff and the vessel at Holyhead.

Blackwall Workshops:

2391. You say that the output of the Blackwall workshops is of the value of £28,000 a year?—Yes.

2392. That means, of course, labour and material?—Quite so.

2393. Do you manufacture any apparatus or appliances there?—Yes, Sir.

2394. Do you find that more economical than buying them by contract?—Very much so, all those things that we make. I mean, for instance, the whole of the incandescent system in the service has been constructed in the Blackwall workshops.

2395. I want you to give me a list of the trades of the men employed at Blackwall Works?—The most important department is that of the fitters.

2396. Neither the Scotch nor the Irish Boards have works comparable to yours?—I do not think so; no, I think not.

2397. You do not know how they manage their works?—No, there are fitters, Sir, and coppersmiths.

2398. It would be quite sufficient if you would just let me have detailed numbers of the various trades, including labourers and the whole of your permanent establishment?—You would like the 150 divided into classes.

2399. The fitters, the boilermakers, the coppersmiths, and the various trades?—Quite so.

2400. You do not know from what you said before, I suppose, whether the engineering costs of the Scotch and Irish Boards for maintenance are more or less, either on the details or the groups, of smaller character than yours?—No; I have no knowledge, Sir.

2401. At Blackwall do you have anything to do with repairs to the lightvessels and steam tenders. Your answer is a portion of them?—Those vessels which are near London, because it pays us to do so.

2402. Who does it?—It is done through the Blackwall workshops; my department.

2403. Entirely?—Entirely.

2404. But you do not do the hulls, do you?—No; that is done under the Surveyor of Shipping.

2405. Of the Board of Trade?—No, of the Trinity House.

Duties of Trinity House Surveyor of Shipping:

2406. You have a Surveyor of Shipping?—We have a Surveyor of Shipping.

2407. What are his duties?—The maintenance of the hulls of the steam vessels and the lightvessels.

2408. Is that done by contract?—Yes.

2409. And are all current repairs undertaken by contract?—Yes.

Steam-Vessels: Repairing:

2410. This is what I call a current repair. There may be some repairs not necessary to bring a ship in for, or something of that sort?—Well, general upkeep of the vessel.

2411. And for the steamers?—Well, I do not think so, Sir.

2412. I am not speaking of the machinery, I am speaking of the vessels themselves?—That is why I am rather doubtful. I do not think so, if you mean such things as fittings for boats and so on.

2413. Say the "Irene" has some damage done to her, or some special repair, is there a special contract obtained for that?—If the "Irene" has some special damage done to her there would be a survey held, and the owner of the craft that caused the damage would have to pay it. That is what would happen then; that is what does happen, as a matter of fact.

2414. In your department the cost of new works is separate from those of renewals and repairs, is it not?—Oh, quite.

2415. But in the detailed account we shall get it clearly?—Oh, yes.

2416. You are going to give us a return for 1905-6, which is for that amount?—Yes.

2417. Will you let us have the stations of your steamers?—I will see that is put on the statement which will be returned through the Secretary.

2418. And the places where they are generally repaired; their headquarters, so to speak?—Yes, Sir.

One Central Lighthouse Authority Would be economic:

2419. Now, do you think that if the three Lighthouse Boards were put under one control and management, with a properly decentralised system, there would be in many ways a great economy?—Yes, Sir, I think there would be.

2420. Under such conditions could not one Engineer do the work, supposing he were supplied with a properly decentralised staff?—Yes, I think he could.

2421. Have you any suggestions to put before the Commissioners that would further the efficiency of the lighthouse administration of the three kingdoms?—Well, Sir, that is a very important point.

2422. Have you ever thought of it?—Yes, I have. I believe if there was one lighthouse administration that economy would result, and I believe it would be principally due to uniformity of administration and of practice in the service.

2423. (*Chairman.*) Are you expressing your own personal opinion?—Yes, Sir.

2424. (*Admiral Henderson.*) I am speaking to you now in a public sense, for the interests of the nation, not for any regard to the Trinity House, or the Scotch Board, or the Irish Board?—You have asked me a question; I am bound to tell you what I believe.

2425. In the national interest?—Yes, Sir, and I believe the result would be what I have told you. I

think a very important point would be the uniformity on the question of stores, and matters of that kind.

2426. Would you favour the Commissioners with a memorandum embodying your ideas by which strides could be made; you would rather not?—I would rather not, Sir. Of course, if the Commissioners call upon me to do so, I must do so.

2427. (*Sir Frank Adam.*) With the consent of the Commissioners, you would have no hesitation, I suppose?—Well, I should like it to go through my Board.

2428. I mean your Board—the Trinity House?—Yes.

Colonial Lighthouses: Maintained by Trinity House.

2429. (*Admiral Henderson.*) I want to pass from high politics to minor detail for a minute. Do any questions connected with Minicoy, Bahamas, the Basses, come before you?—Constantly, Sir.

2430. I am asking this question, because I want to know whether there have been any recent questions, and what is the nature of the questions that have come to you?—Well, Sir, it came to my knowledge in the autumn of last year that there was an undermining taking place in the rock of the Little Basses Lighthouse, which I reported to my Board, and my Board reported to the Board of Trade. The result of that has been that there have been various representations on it to the Board of Trade, and the matter is now in abeyance until the Engineer at the station at Colombo arrives in England, when he will be interviewed by the Trinity House, and we have to advise the Board of Trade as to what should be done. And, again, the Elder Brethren within the last few weeks have reported to the Board of Trade, and have pointed out the advantage of the incandescent system of lighthouse illumination, and recommended that they should carry it out in the lighthouses with a view of saving annual expenditure.

2431. Do you know anything about the administrative system of France and Germany and other foreign nations?—No, Sir. All I can say to you on that subject is this, that I have tried on several occasions to get at the first cost of their works in France, but we have entirely failed to do so. Owing to their system of accounts, it is impossible to get at it.

Blackwall Workshops: Accommodation of,

2432. Is there any room for additional buildings at Blackwall?—Well, very little, Sir. We have, as I explained to you just now, a small space where I hope to expand our gasworks, and then we shall be full.

2433. And is there much room for extension in the number of employes; room for employes?—Oh, yes, Sir.

2434. What would you consider the maximum number of tradesmen you could employ as a total?—As a matter of fact, when I told you 150, that means the mean; sometimes we have had as many as 180.

2435. What is the maximum you can accomodate there?—I daresay we could accomodate 200, Sir.

2436. Have any members of the Trinity House, or yourself, visited any of these foreign exhibitions where there have been great lighthouse shows?—One of the Elder Brethren visited Milan this season.

Contracts: Allocation of,

2437. (*Sir Frank Adam.*) In the matter of tenders for stores, I think you tabled a form which showed that you asked for certain tenderers a number of articles?—Yes, Sir.

2438. In dealing with these, do you pick out and accept the lowest price for the tenders of each tenderer?—Yes, Sir.

2439. You do not deal with them as a whole?—What happens is this: The tenders are received, and they are all scheduled, and we go to the firm for the lowest items contained in their tender.

2440. In regard to the Blackwall works, do you find that as a rule your staff there is fully employed, year in and year out?—Oh, yes; you see, they are always fluctuating.

2441. I understand that; you have explained that already?—We should pay them off, Sir.

2442. There is certain work you find you can do cheaper by your experience at Blackwall than by giving it out elsewhere?—Yes.

Blackwall Workshops: Accommodation of,

2443. Supposing that you found that work increasing very much, is there a possibility of expansion at Blackwall; could you increase your plant and machinery?—We cannot increase our shops very much, but we could give more accommodation to the men we have. As I have already stated, we have had as many as 180, 182, or 183 men. I think we could work 200 men.

2444. Have the Trinity House Board ever considered whether it would be advisable and economical to have similar works started in other parts of the country?—They have considered the question of having gasworks in other parts of the country, but at that time our demand from the out-districts was much smaller than it is now, and that is why we get it from the railway companies.

2445. Because I gathered that you followed the principle and the plan of sending whatever work you require to be done to ships, and in other ways, to the nearest point, for economical reasons?—Quite, Sir.

2445. But my question was rather with a view to ascertaining whether you had considered, or the Trinity Board had considered, even under those circumstances, whether it would be advisable in certain localities, where there was constant work going on, to do it yourself, and whether you could not do it cheaper with such works as the Blackwall workshops, instead of giving it out to local people?—We have done that, Sir, and two or three years since we went into the matter and considered the question of removing the whole of the works to Harwich, but we found it was cheaper to remain where we are.

2447. Then one other question from another point of view, not in regard to this. I suppose you would have no difficulty, supposing you found the general work of your department increasing very much, and you found that your present staff could not efficiently undertake it, in appointing additional assistant mechanical and civil and marine engineers, working under you, to do the extra work?—Oh no, Sir.

2448. Looking at it as a matter of departmental system, there would be no difficulty in increasing that to any extent?—I think that could be done.

2449. You would find suitable men, and divide their work under you, as would be necessary, and practically do almost any amount of work; is that so?—Yes.

2450. (*Colonel Herbert.*) That does not quite agree with the answer you gave me on the same point. Possibly you may have misapprehended what I was asking. I asked, I think, a question as to whether there was power of expansion, and you said there was not. I was on the very same point?—I am sorry I misunderstood you.

2451. I thought possibly there was some little misunderstanding, but perhaps that will be corrected in the proof?—I will do so.*

Steam-vessels: Increase of, in last ten years.

2452. (*Sir Frank Adam.*) Has the number of steamers increased of recent years that are used for carrying material and for other purposes?—Yes, Sir; by one vessel.

2453. In how many years?—In about 10 years. It was in this way; we had a wood vessel, a sailing vessel, at Cowes. She had to be condemned, and we put one of our small vessels there from Penzance, and then put a new vessel at Penzance, because the Elder Brethren had handed over to the Penzance district the Channel Islands.

2454. And although you have only had an increase of one vessel in 10 years, you have had a great diminution, owing to improvements which you yourself have introduced, in connection with the carriage of oil in that particular branch?—In that particular branch, but it has increased in others.

Work of,

2455. But I understand the general increase of work has been set-off against that decrease in that special department?—That is so.

2455. Had it been otherwise, you would have had a larger number of vessels to be added, if your general work is increasing?—Yes.

2457. And supposing there had been no economy in the use of oil and the carriage of oil, you would have more steamers now than you have?—Probably.

2458. Probably, not certainly?—I am not certain; no.

2459. Is it your opinion—I daresay that will be put in in some tables or statistics you give us—that your vessels that you have now are fully employed all the year round?—Well, not in the sense that they are at sea every day; certainly not. No, the table which the

* See Q. 2171.

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Secretary is preparing will show you the exact number of days that each vessel is absent from her moorings per annum

2460. Have you any plan or general system by which you endeavour to save money when you are not using them as constantly as possible?—Yes, Sir, the steam vessels of the service do all the work that has to be done by steam vessels for the service. We never—when I say "never," it is very very exceptional indeed—hire a tug. For instance, in executing special repairs the vessels are taken during the time when they are not required in connection with relief or gas buoy work, and they will be on service again before the reliefs of the lighthouses or the lightships are due.

2461. In taking into consideration a plan for keeping your vessels as effectively, as constantly, employed as possible, I suppose you consider also the question of the carriage of materials and stores to those works which you have undertaken yourself, because you think you can do it more cheaply?—Yes, Sir.

2462. And at any rate if the cost of these works is not debited, that the amount is set off against what you would have to pay for carriage, did you not use your own steamers; at any rate that you secure by the use of those steamers an actual saving, because otherwise they would not be employed?—Yes, Sir.

One Central Lighthouse Authority: Would be economical.

2463. (*Mr. Ennis.*) One supplementary question. In reply to Admiral Henderson you gave it as your personal opinion that one Board controlling the lighting of the United Kingdom would be an improvement on the three Boards existing at present. I think that is so?—Well, hardly that I think, was it?

2464. That is what I understood your reply to be?—What I intended to have said was this, Sir; that I believe that with one authority economy would occur, because you would have one administration, one practice throughout the three services, and the greatest economy I think would accrue in connection with the purchase of stores. Other things of course would follow.

2465. (*Chairman.*) You were speaking entirely from the point of view of economy?—I was, Sir.

2466. You did not express an opinion on policy?—No, Sir, that is not my function.

Trinity House: Control of, over Scotch and Irish Boards.

2467. (*Mr. Ennis.*) With regard to the difficulties that might arise in the constitution of such a single body, I just wish to ask, is it not a fact that you exercise a certain limited amount of control over both the Irish and Scotch Boards?—That is so.

2468. That is to say, these Boards have to submit to you their proposals, and obtain your sanction before going further?—Yes.

2469. But then they have, as a court of appeal, the Board of Trade?—That is so.

2470. And is it not a fact that both the Irish and the Scotch Boards have on a considerable number of occasions made proposals which were not sanctioned by your Board, but which on appeal to the Board of Trade were sanctioned by the Board of Trade, and carried into effect?—I do not think so, Sir. I think this; that it has occurred on some occasions when they have appealed to the Board of Trade, that the Board of Trade have agreed, but I should not go so far as to say on many occasions.

2471. I do not put it as many; a considerable number; the two Boards?—Well, not in proportion. What happens really is this; that we correspond with the Irish or Scotch Commissioners, and if it is possible we come into line, and then, if we cannot come into line, they appeal to the Board of Trade, and in some instances the Board of Trade agree with the Authority against the decision of the Trinity House, but those cases are exceptional, and when they occur, it is generally for financial reasons.

2472. That is to say, that in those cases, whether the number be large or small—I do not assume they are large, but there is a certain number of cases—if it had been in the hands of the Trinity House only, those works would never have been carried out, because they never would have gone to the Board of Trade unless the other Boards had existed to put them forward?—I would not say that, because if the Trinity House were the one authority they would carry out that particular work probably when other and more important work, in the view of the Lighthouse Authority, had been carried out. You see, if it were one Lighthouse Authority you would have a certain amount of money to expend on new works, and naturally they would expend that amount of money wherever it was of the greatest advantage.

2473. In the opinion of that authority?—In the opinion of that authority.

2474. (*Colonel Herbert.*) May I ask you then if it would be stating your view correctly to say, that having regard to the fact that the Trinity House is a controlling authority over the others, it would appear somewhat as an anomaly that the different branches of your authority were so little in touch with the others; that would be about the feeling which you have?—Yes. Might I say one word? I will not keep you a moment. I should like to say this in addition to what I have mentioned about experiments, that we are now carrying out experiments also in connection with the diaphone. You have mentioned the question of sirens, Sir. Last year we carried out some experiments with the diaphone against our siren, and we are making certain alterations and developments during the winter, and we are to go on with these experiments in the early spring. I thought I should like to mention that. And then we are also going on with the question of submarine fog-signals, and the question of the incandescent system for catoptric lights and acetylene.

Experiments with Diaphone, present being tried.

2475. I suppose the experiments with the diaphone will also be watched with regard to its effects on the area of silence?—Yes, and the Scotch and Irish Authorities will know exactly what we are doing, Sir.

Mr. David Alan Stevenson, called in; and examined.

Mr. D. A. Stevenson.

2476. (*Chairman.*) You are Engineer to the Commissioners of the Northern Lighthouses?—I am.

Mr. D. A. Stevenson: Qualifications of,

2477. Will you describe your qualifications?—I am a Bachelor of Science, a Member of the Institution of Civil Engineers, and of the Institution of Mechanical Engineers, and a Fellow of the Royal Society of Edinburgh. I have been engaged in lighthouse engineering since my earliest days under my father, David Stevenson. I was appointed Joint Engineer to the Commissioners with the late Mr. Thomas Stevenson in 1885, and on the death of the latter in 1887, Engineer.

2478. You are a member of the firm of D. and C. Stevenson?—I am; and my firm, which consists of my brother and myself, and our staff of draughtsmen and clerks, carry on the engineering work of the Commissioners. We have a general engineering practice; but Lighthouse work is a speciality with us, and the Northern Lighthouse work is, of course, the principal part of our business. Besides the Northern Lighthouse work, we are consulted by a number of other Lighthouse Authorities, such as the Clyde Lighthouses Trustees, the Dundee Harbour Trustees, and numerous local authorities in Scotland and England. We also advise the New Zealand Lighthouse Authorities, and have been consulted by and designed work for the Indian, Chinese, Newfoundland, and Japanese Lighthouse Authorities.

2479. You have had, of course, very large experience of the coast of Scotland?—Yes, I know it very well; I have known it since my earliest days.

2480. In addition to experience acquired in Scotland, have you visited lighthouse stations elsewhere?—I have, both on the Continent and in America.

2481. In the United States?—In the United States.

2482. Are you familiar with the lighthouse system in the United States?—It is about 15 years since I was there.

Duties of Engineer to Northern Lighthouse Board.

2483. Will you describe to us your duties?—My duties consist in attending all meetings of the Board and such committee meetings as I am summoned to; in advising and drawing up reports (which number about 90 per annum) on all matters remitted to me by the Commissioners—such as the necessity or otherwise for new lighthouses, fog-signals, beacons, and buoys that are applied for, the best position for such, should they be entertained, and the powers and the characters to be given them to distinguish them from other seamarks in the neighbourhood. I prepare and submit estimates of the probable cost. I also advise and re-

port to the Commissioners on all applications from local authorities desiring new or altering the existing seamarks under their jurisdiction. There are about 139 of these jurisdictions in Scotland. I carry out any experiments and report on any new inventions or improvements brought before the Commissioners in the methods of lighting and fog-signalling, etc. I advise on any question of repair or maintenance of existing seamarks that I may be consulted on, *i.e.*, any of the larger repairs, not the general or ordinary repairs. My duty is also to examine and report on the lighting apparatus and machinery of all the lighthouses and other seamarks in the service once in five years—now numbering 318. That does not mean that the examination is all done in one year, but it is spread over the five years. Once in five years I have to report on each station, and I try and divide the work when I am going round the coast so that the Board get a report once in five years on every lighthouse, the state of the optical apparatus, the state of the machinery generally, and the houses and buildings. Of course, I make frequent intermediate visits without formally reporting. I also examine and report on all the harbour and local lights round the coast once in three years—numbering about 260, many of which are in Orkney, Shetland, North-West of Scotland, Skye, and the Island of Lewis, and absolutely inaccessible by rail or mail-boat. That, in the same way, is not all done in one year, but it is spread over the three years. I have to do a great many of them by the steamers of the service. I advise, when consulted, as to the lighting and disposal of wrecks when they are a danger to navigation. I draw up the draft Notices to Mariners of new, and alterations on existing, lights and beacons and buoys, and their bearings, and make the feuing plans for any land required. I also correct and adjust the Admiralty Light List, giving the characters of the lights, their bearings, their candle-power, etc., both of those under the Northern Lighthouse Board and under local authorities. It includes all the lights round the coast. For the above work I am remunerated by fees for the services of myself, my brother, and my assistants at fixed rates—for myself £5 5s., for my assistants £3 3s. and £1 1s. per day of eight hours. In addition to the above, I design and prepare working drawings and specifications of any new works or special repairs undertaken by the Commissioners. Special repairs mean any of the larger repairs—such as the necessary towers, houses, piers, slips, roads, dioptric apparatus, lanterns, lamps, machines, and fog-signal machinery, as well as buoys, gas-boats, moorings, storehouses, etc. I examine and report on the tenders for the work which are received by the Secretary. The Secretary receives the tenders. I conduct the works during their progress, inspect them, conduct all correspondence with the contractors and inspectors or clerk of works, make up certificates for payment of instalments to the contractors, and of the final accounts. For the above work I am paid 5 per cent. on the estimated cost of the work, which covers my own, my brother's, and my assistants' time.

2484. In short, you are Consulting Engineer to the Commissioners; but you are also the Commissioners' Architect?—Yes, Sir.

2485. As Consulting Engineer you are paid by fee, and as Architect you are paid by percentage on the work?—That is so.

2486. Your duties, I think, are not exactly the same as those of the Engineer to the Trinity House?—No. Of course, I advise on points as to the lighting of the coast, which I do not think either Mr. Matthews or Mr. Scott do. I think neither of them advise on these points.

2487. On the other hand, I do not think you undertake what is undertaken by the Engineer to the Trinity House—that is, the actual execution of works. All your works are done by contract?—I would not say absolutely in every very small thing. Making a base for a concrete beacon has occasionally been done by day's wages; but it is a matter of £200 or £300, nothing larger than that. We always, if possible, do the thing by contract—the Commissioners prefer it.

2488. Those are the principal differences between your work and that of the Engineer to the Trinity House?—I think so.

Travelling allowance of,

2489. Then are you paid in addition for your travelling expenses?—Yes; I get an allowance of £80 per annum. That covers all our expenses and our assistants'.

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2490. Whatever they may be?—Whatever they may be. I may say the reason why that was made a fixed sum was, of course I do go about a good deal for the Fishery Board and otherwise round the country, and the accountant found some difficulty when I divided the expenses of my travelling between the two Boards. They thought it was difficult to account to the Board of Trade. They like to see the full figure down, so that they can check it from the time-tables, and see how much you pay actually for your travelling expenses. When I divided it up, and put half, say, to the Fishery Board and half to the Northern Lights Commissioners, that was impossible. It came to this, but they did not like it, so that was the origin of that sum being fixed.

Remuneration of,

2491. Can you give us an indication of what your total remuneration from the Lighthouse Authority amounts to in the year on an average?—£2,130 I think is the average for the last 10 years.

2492. That is including both fees and percentages?—Fees and percentages, and also the sum for the travelling expenses, the whole thing, that is the money my firm have received.

Northern Lighthouse Board: Policy of, as to lighting of coasts.

2493. What is the general policy adopted by the Commissioners as regards the lighting of the coasts and the erection of new works?—Their policy has been where there are parts of the coast unlighted or inefficiently lighted to erect new lighthouses, buoys and beacons, and they have in past years framed their estimates and applied for funds to the extent of from £20,000 to £25,000 per annum for the purpose of new works. That is what they have sent up to the Board of Trade. They aim at that. That is what they have done in putting forward their estimates for the year.

2494. They have a general programme on hand, and select each year which of the items in that programme they think most important?—Yes, that is what they do.

2495. And then to the extent of £20,000 or £25,000 they ask the Board of Trade to sanction it?—That is what they do. They have followed the policy of gradually improving the lighting of the coast under their charge as funds are available by the construction of new fully-equipped lights where they consider such necessary, the cost varying from £6,000 to £8,000 for land stations, about £12,000 where a fog-signal is established in addition to the light, and rising to £19,000 in very difficult situations such as Flannan Islands. That is an island about ten miles west of Lewis.

2496. That was work recently executed was it not?—Yes, within recent years.

Lighthouses: Improvements of existing,

2497. Then of course also you undertake the improvement of existing lights?—Yes, strengthening them and making their character such as to be distinctive instead of the old fixed light which was previously in vogue.

2498. When the character of a light is altered do the Commissioners regard that as a new work which has to be submitted to the Board of Trade and to the Advisory Committee?—They do.

2499. Will you describe the character of the improvement in the existing lights?—Substituting for catoptric and catadioptric, dioptric apparatus, and lights of a distinctive character—flashing, group flashing or occulting—for the old fixed lights. The catoptric lights are the old reflector lights, nothing but reflectors, and the catadioptric lights are the old reflector lights with prisms in front of them, which was a subsequent improvement, and the latest form, of course, is the dioptric apparatus, that is the best, and that the Commissioners aim at putting in.

2500. And that is invariably put in now, the dioptric?—Invariably. We never put in reflectors in a new light or even catadioptric apparatus. It generally costs something about £2,000 to convert one of the new lights to the dioptric. It varies a good deal, and depends upon the state of the lantern whether it is large enough to take in the new dioptric apparatus. If it is not large enough it will cost more than £2,000. £2,000 may be taken as a sort of average.

2501. For converting a light?—For converting a light. Then they have also largely adopted the erection of beacon lights and laying down lighted buoys, the beacon lights costing £400 to £600, the buoys, including moorings, £300 to £400 at places where stronger lights are necessary. They have also installated fog-

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signals at existing stations where they would enable passing trade to proceed on their passage with little or no detention, costing about £5,000 each.

2502. Fog-signals?—Fog-signals, yes, that is, as a rule, the siren, and, lastly, by the installation of unlighted beacons and buoys, where such are considered sufficient.

2503. What is the cost of laying down beacon lights?—A beacon light costs from £400 to £600.

2504. And the buoys?—And the buoys from £300 to £400.

Lighting Apparatus: Efficiency of,

2505. As regards lighting apparatus, you are quite satisfied with the efficiency now attained?—Yes, it is admirably kept; there is no doubt about that, judging from my inspection at least once in five years. The district superintendents are very careful, they go round every year, and they keep the machinery and everything in excellent repair. Very little requires to be done. And the focussing of the burners—which, of course, is one of the principal points—to see that the burner is kept properly in the focus of the apparatus, so as to give the best effect of the light, that also I have almost invariably found quite satisfactory.

2506. How many of the catadioptric lights are there now left?—Thirteen catoptric and catadioptric, the remaining 67 are dioptric.

2507. Would you put in a statement of the various lights with their respective candle-powers and method of illumination?—Yes, I shall do so.

2508. Electric or otherwise?—Yes.

Illuminants: One electric light in Scotland.

2509. You have only one electric light?—We have only one electric light.

2510. That is the Isle of May?—It is. Of course the electric light is the best illuminant for a lighthouse, but it is very costly. It is not worth the cost.

2511. The additional expenditure?—The additional expenditure, no. Our Isle of May light costs about three times as much to maintain as an ordinary oil light would do.

2512. You do not anticipate that electric light will be used in any further installations for lighthouses?—I do not think so, Sir, because when it really comes to weather so thick that you cannot see a really good oil light, then I am afraid it is necessary to go to something else, sound signals, or something of that description. Light is no use. That is my experience.

2513. At what date was the light on the May Island put up?—1886.

2514. There was a general impression at that time I think that electric lighting would come in largely for lighthouse purposes?—Yes, our friends in France, the engineers there, took a very pronounced view about what electric light was going to do.

2515. Was electricity adopted by the Commissioners on their own initiation?—No, the question of gas and oil lighting and electricity was very much to the front at that time, the question which was the best illuminant. The Irish Commissioners were very much in favour of gas, and Trinity House were very much in favour of oil, and I think, my recollection is, that the Board of Trade requested us in Scotland to try the electric light to see what could be done with it.

2516. That is to say they suggested to you that you should try it?—They suggetsed to us that we should try it as an experiment. Some people think it is not a good illuminant for a lighthouse, but it is; it is the very best. I have not the least doubt in my own mind it is the best illuminant for a lighthouse, bar the expense.

Advantages and disadvantages of electric light.

2517. (*Sir Frank Adam.*) Under all circumstances?—Under all circumstances. It is disappointing in this way, that having so much of the higher refrangible rays in the light, it is very much cut down by fog. You expect very much more from it than you get. When it comes to fog you are disappointed. I should say that you would not see the Isle of May perhaps above half a mile further than you would see our best oil light, but you do get that half mile.

2518. At great cost?—At great cost; I do not think it is worth it.

Lighting Apparatus: Improvements in dioptric,

2519. (*Chairman.*) Have your firm had an important share in introducing improvements in dioptric apparatus?—Yes, my predecessors and my brother have been the leading improvers of dioptric apparatus since the days of Fresnel; practically, in fact, every improvement in dioptric apparatus has been introduced by them.

2520. I suppose you co-operate with Trinity House as regards improvement in lighting apparatus; you are in constant communication with them?—Yes, and also with the Irish Board. We, the engineers, correspond with one another and interchange all drawings and ideas.

Incandesc oil burner

2521. It was Trinity House, I think, that first adopted the incandescent oil burner, was it not?—I do not know, Sir, whether they absolutely had it in first or not; I cannot be sure as to that, into a lighthouse. What we have done is we have examined all the forms of the Kitson burners that were extant, the French burner, Mr. Matthews' burner, and the Chance burner, and we have adopted Chance's burner. We think it preferable as regards management; we think it is more easily managed than the other burners. The French burner we did not approve of. We found it was very irregular in action; the weather affected it very much; it often went out. We put it into Inchkeith lighthouse at a very early date to try it there.

2522. Did you try the Trinity House burner?—Yes, but not in a lighthouse. They very kindly sent us an installation to try it. We tried it in the lighthouse store along with Chance's burner.

2523. And on the whole you preferred Chance's burner?—Yes, in the working of it we thought it was more likely to work well in the hands of our lightkeepers. I would not like to say that if both burners were worked by an expert that you might not get a shade more candle power out of Matthews' burner; I would not like to say that, but that is the conclusion we came to, I and our inspectors. We tried the burners to see what was likely to be the best thing, and we have adopted it, and we get 1,200 to 2,150 candle-power quite easily out of Chance's burner depending on the size of the mantle.

2524. What have you found to be actually the saving in oil and the increase in light from the incandescent system?—Well, we get about three times the power.

2525. With a diminished consumption of oil?—With about half—from half to a third the consumption of oil. It has not affected us so much as it does the other services, because we have never adopted the larger size of burners which they have. They have very large burners, 10 and 8 wicks; we have never used anything larger than 6. We never adopted the larger sizes because, in our view, the size of the burner made the light ex-focal and of little use. They have gone in for these larger burners and the putting in of this burner of small consumption has reduced their total consumption very much. I do not think the putting in of the incandescent burner, if put into the whole of the lighthouses in Scotland, which, I think, it will be next year, will have saved us more than about £600 a year. But we have got a very greatly increased candle-power. It is a most admirable lighthouse burner, and has made a great improvement in our lights.

2526. What is the most powerful incandescent light you have now?—Kinnaird Head. We have got there 881,000 candle-power. I think it is the most powerful light on all the three coasts. But, then, it is not altogether due to the candle-power of the burner, the apparatus there is very effective.

Illuminan Pintsch's gas used f buoys and beacons.

2527. Do you use compressed oil gas for the most part for the illumination of buoys and beacons?—Yes, we introduced that at a very early date. Pintsch's compressed oil gas.

2528. And that has been found perfectly successful?—Yes, perfectly successful. It has enabled the Commissioners to light the Western Sounds in a way they never could have done without it, both with buoys and beacons.

2529. Are any lighthouses lighted with gas?—Yes, we have converted some of the smaller lights to gas which has enabled us to reduce the staff to one keeper. The oil light must have constant attention, you cannot leave it, but a gas light you can leave, and hence the Commissioners resolved to put gas into some of those smaller lights in the Sounds.

2530 What was the cost of the change?—It costs about £300 on the average.

2531. And you save the wages of one man?—And we save the wages of one man.

Acetylene was used for beacons.

2532. Annually?—Annually, yes.

2532a. Have you made any experiments with acetylene, or have you actually adopted acetylene?—Yes, we have acetylene in four beacons on the coast of Scotland now.

2533. And has that proved successful?—Very successful indeed. The old oil beacons are not found to be very reliable; we cannot get a reliable character out of them very well. The only way in which a character can be got is by the heat from the flame going up through a vent on the top and driving shades round the burner and so occulting the light. The result is that if it is still weather these shades go slow, and if it is breezy weather they go fast, and you cannot get a regular character out of them. Well, what we can do with gas is this, by putting in what is called a flasher we can get an absolute character, a steady character, showing two seconds light, four seconds dark, etc.

2534. Are you speaking now of acetylene?—Of acetylene. I am giving the reason why we have adopted acetylene instead of the oil burners at unattended lights. These are what we call unattended.

Lightships: Unattended, are satisfactory.

2535. You have, I think, some unattended lightships have you not?—Yes, we have two now.

2536. Have they proved successful?—Yes, very successful.

2537. Where are they?—One is at the Otter Rock, off the south end of Islay, and the other is at Skerinoe, in the Minch.

2538. Do you consider they have an advantage over lighted buoys?—Yes, they can carry a better light and at a higher elevation; it is more easily seen.

2539. While the cost is very much less than that of a lightship?—The cost is very much less than a lightship, both in first cost, and, of course, the maintenance is very small.

2540. What is the maintenance?—For the gas it is a mere fraction; I should think something like perhaps £30 or £40 a year; that is including repairs.

2541. As compared with the expense of a lightvessel amounting to about——?—£1,400 a year.

2542. And the first cost?—And the first cost; about £11,000 to £12,000 for a fully-manned lightship, the unattended vessel only costs £3,000. Of course, there is this disadvantage attaching to an unattended lightboat, namely, that we can have no fog-signal, bar a bell.

2543. That is, as compared with the manned lightship?—Yes.

2544. As compared with a buoy it does not have that disadvantage?—No, but as compared with the vessel, the unattended lightvessel, we have no really effective fog-signals on board; we cannot have it.

Fog-signals: Relative advantages of different kinds of,

2545. Well, as to fog-signals, what are the fog-signals which you regard as most satisfactory?—The siren, undoubtedly.

2546. Do you work the siren with oil engines?—With oil engines now since their invention.

2547. Explosive fog-signals you only use where you are compelled to use them?—That is so. There are several objections to them. The annual cost is very high. The cost of the explosive charges is very great, and then, we can only fire them about once in five minutes and that is not sufficiently often to give an effective warning to the seaman. We want something to give a report every minute-and-a-half or three minutes at the outside, and we find we cannot work an explosive fog-signal any faster than once in five minutes.

2548. How many explosive fog-signals have you altogether?—Five, I think it is.

2549. Out of a total number of fog-signals of 37. Are the rest sirens or reeds?—There is one reed and the rest sirens, one reed at Pladda.

2550. You greatly prefer the siren to the reed?—Oh, yes, it is very much more effective.

Experiments: Undertaken by Northern Lighthouse Board.

2551. Now, as to experiments. I gather that the Commissioners do not spend very much on experiments?—No, Sir, not in making direct experiments, not in carrying out large experiments upon illuminants or anything of that kind; no, we do not do that, but, of course, we are always experimenting in this way, that we invite anybody who will come forward to give us an exhibition and show us what they can do; if we are satisfied it is a satisfactory thing we carry it out. Perhaps you would like me to give you some details about that?

2552. Yes, we should like that, if you please.—Well, the South Foreland experiments I suppose you have no doubt heard about from others. In that case the Elder Brethren invited the Commissioners to see those experiments carried out, and I personally attended and saw them, and reported to our own Board on the subject.

2553. Trinity House would, as matter of course, invite you to any important experiments?—Yes, I think so; they have always done so. In the same way if we have anything we always invite them. Then the intensity experiments at the South Foreland. In 1893 there was a series of experiments carried out under Sir James Douglass and Mr. William Douglass and myself. We three were appointed to have those experiments carried out for the purpose of testing the candlepower of burners in different kinds of apparatus and arranging tables for fixing finally the candlepowers of lights, and all the candlepowers of lights as published are founded upon these tables. We did it jointly between us, the three Engineers of the three Boards. Then the Otter Lightship, for example, was, to some extent, an experiment which the Commissioners resolved to carry out. After very careful consideration we convinced the Commissioners and the Board of Trade it would be a good thing to try the unattended lightship, and the Otter Lightship was put down, and it has proved quite sucessful.

2554. The system of measuring candlepower established by you has now been adopted by all the three Authorities in the United Kingdom, has it not?—It was a joint thing; it was carried out by the three Boards jointly—Sir James Douglass, Mr. William Douglass, for the Irish Board, and myself. We three were appointed by the Boards jointly to carry out the experiments and publish the results, and that was done.

2555. You came to the conclusion that the system previously in use gave too high a candlpower?—Yes, certainly. Then the motor siren; that was a thing which we did ourselves, in the workshops, while the sirens were being made in the contractor's workshop. It occurred to me that the note of the siren was not homogeneous; that the pitch rose as the air rushed through the siren and got so shrill that its carrying power, I thought, was defective, and no means that we then employed would brake it so as to keep it running at a constant speed. It occurred to me that if we could drive the siren with a small air motor like a windmill this defect would be got over, so we put a small motor on the next fog-signal we had in hand. We designed a small motor to put on the siren, a thing costing perhaps £4 or £5, and found it was eminently satisfactory, and practically all our sirens have been altered to that. The increase of power has been so great that it has made a wonderful effect on our signals, and we now use it universally.

2556. (*Admiral Henderson.*) Has that been adopted by the other Boards?—No, Sir, I do not think they have adopted it. It was tried at the St. Catherine's experiments, and I think it proved itself to be satisfactory. I do not think they have adopted it. Then there were the St. Catherine's fog-signal experiments. The Elder Brethren invited the Commissioners to send an instrument to try, which they did, and they also asked them to give any suggestions as to how the experiments should be carried out. That, also, the Commissioners did, and the results have been published. I do not think that they quite gave effect to what we suggested, but I was down there and saw some of the experiments tried, and reported to my own Board.

2557. At all events, in all these experiments the three Boards were co-operative?—We were. I do not know what was done by the Irish Board, but we were certainly invited. Then acetylene gas; well, with that I experimented, and this was done, not for the Commissioners, but for the Clyde Lighthouse Trustees, and there we introduced acetylene, and subsequently, seeing the effect of it on the Clyde and at other places in Scotland, the Commissioners have adopted it, but they had nothing to do with the introduction of it. Then there were these experiments I have told you of, that were made about the incandescent oil-burner—the French burner, Mr. Matthews' burner, and Chance's burner. Then in 1902, a Canadian firm approached us with an instrument called the diaphone,

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which promised to be a very effective fog-signal, and the Commissioners said to them, "Well, if you think it is worth your while we will be very glad if you will put down a diaphone alongside our signal at Girdleness; we will try it and see whether it is of any use or not." They accepted the terms, the experiment was made, the instrument was put down, and we tried it, and although it was good it was not as good as the siren, and they were satisfied that it was so. But I may say, within the last six months, they have returned to the charge, and I hope we may have another trial of it. They say next spring they will come over and let us try it again, as they have now greatly improved it. There are points in it that one can see, from a scientific point of view, that make it possible that it may be a better instrument, especially that very point, getting a note of constant pitch that I was trying for with the motor siren. If this diaphone will work and carry out what they say, it will be better still, from the point of view of keeping an even note without that rising and falling—a homogeneous note.

Fog-signals: Areas of silence of,

2558. (*Chairman.*) Have you had experience of zones of silence in connection with sirens?—Oh, yes, Sir. We were very much troubled at Stroma with that, but we found that pointing the horn into the zone eradicated the defect to a large extent; I do not say altogether, but it is very much eradicated.

2559. We have had evidence from Mr. Matthews that areas of silence vary greatly with the different conditions of locality and weather?—Yes, I should think that is so. I think myself, as I pointed out in a report I made to my Commissioners, that it has something to do with the different temperature of the water and air. We generally find, where there is a pretty strong tide, there is the place where we get this silent area. That is my experience, and I think it must have something to do with colder water or warmer water, I do not know which, brought by the tide race from down below and running past the lighthouse, encountering the air of a different temperature, making currents ascending and descending, which interfere with the passage of the sound.

Experiments: Undertaken by Northern Lighthouse Board.

2560. But that is a suggested explanation of a matter which is still obscure?—Oh, quite obscure. That is merely my theory. Then the Reavell Compressor for compressing air for fog-signals. When we were introducing a new fog-signal, instead of putting in our old compressor to all three engines, we put a Reavell compressor to one of them to see what the effect would be. There was a good deal of trouble with what we call lift-valves in the ordinary compressor, and noise which interfered with the proper attention to the engine. This Reavell Compressor did away with that, and the last two installations have had the Reavell Compressor put to it, and they are giving every satisfaction. Successful experiments in wireless telegraphy for lighthouse communication were made by the Commissioners before the days of Marconi, and recently a system substituting wireless telegraphy for sound fog-signals was also experimented on by them. Then a small matter: We found in our unattended lights where we were burning oil that they very often took fire and did considerable damage. The flame seems to rise and set fire to the oil in the burner, and on several occasions considerable damage was done to the prisms. The place was not burned down in any case, because we build them of iron, but there was considerable damage done to the lens. It occurred to me the only cure for that would be to put what we call a fusible plug into one side of the burner, with a chain attached to it, supporting a lever which actuates the cock of the cistern where the oil came from. If the flame rose and the burner got too hot, this plug melted, the chain released, the lever fell and shut off the oil, with the result that the only damage that was done then was the burning of the oil in the burner, and it did not flow out of the receiving chamber and cause damage. This was effected by a small experiment, probably three days of a mechanic in a workshop. And, lastly, we have the dissolved acetylene. Well, we are in correspondence now with the London Acetylene Company, who propose to give us a demonstration of what dissolved acetylene can do, and the Commissioners, I think, are prepared to give them an opportunity of showing what they can do in that way.

2561. Do you consider that it would be an advantage to spend a larger sum than is now spent out of the Lighthouse Fund on experiments?—Well, if any important question arose, such, for example, as was tested at St. Catherine's or at the South Foreland in the old days; if any questions of that kind arose, then I think it would be important. So far as I know I do not know any good that we could do with it.

2562. You think you ought to have in sight a definite experiment before spending money?—That is my idea; I think so.

Contracts: Allocation of,

2563. Well, now, as to contracts, I suppose it is the fact that practically all your new works are executed by contract?—Yes, all our new works by contract. Tenders are invited on detailed plans and specifications, with the exception of the dioptric apparatus, which is obtained now under an arrangement with Messrs. Chance.

2564. That is a special arrangement with Messrs. Chance?—That is a special arrangement with Messrs. Chance. It has been in vogue now for eight years.

2565. Messrs. Chance are the only British makers of dioptric apparatus?—They are the only British makers. At first the Commissioners were very much against it, because we did not consider that the work supplied by Messrs. Chance, the class of the work, was so good as what was produced in France, and it was not at one time, but I must say that since we have been at them they have improved considerably, and certainly within the last six years there is a great improvement, so the Commissioners, when the arrangement was again gone into, did not oppose it very strongly.

2566. I imagine it was the feeling of the other Authorities and of the Board that it would be undesirable to be dependent entirely on foreign countries for dioptric apparatus?—I believe that was so.

2567. Do you think you get the dioptric apparatus at a reasonable price from Messrs. Chance?—Yes, I think we do; I do not say you would not get it a shade less if you did go to open contract.

2568. But the difference would not be substantial?—I do not think it would be substantial. You see, there are several makers in France who might compete and bring down the price. The lanterns and machinery of all kinds are obtained by competitive tenders from firms, if possible, in Edinburgh or Glasgow. The object of that is to enable me and my inspector and my assistants to be constantly on the spot where work is being executed. We have an inspector who is for ever going about through these shops in Edinburgh and Glasgow seeing every detail of the work turned out, and, of course, I personally, can very constantly see the work as it goes on in these shops.

2569. There are several of those firms?—There are four.

2570. So that sufficient competition is secured?—We are getting very low prices just now. A good deal depends on the amount of work which is going on, generally, what your prices are, and for example, just now things are very low.

2571. Now as to buildings, it is the duty of the Engineer to make plans, I suppose, for buildings?—Yes, I prepare the plans.

2572. Tenders are always invited for construction?—Always invited. We generally invite fifteen or twenty contractors. We try to get contractors in the neighbourhood who know the general run. Occasionally we are not able to invite so many as that where we have got to take the men out in the steamers to inspect the situation and have them away, perhaps, for two or three days. You will see it is expensive for us to take out so many as that, so the Commissioners make a selection of six or eight, but that is very seldom, only for places like Flannan Islands.

2573. Have the tenders sent in corresponded pretty closely with your estimates?—Yes, as a rule very closely.

2574. Has there been very much difference between the highest and the lowest tender for buildings?—Oh, yes, sometimes 50 per cent.

2575. But on the whole, your estimates have fairly corresponded to the lowest tender?—Well, when you say correspond to the tenders, the whole work has been completed within my estimates, as a rule, but sometimes the tender that is accepted is a little above or below my estimate; it is very close.

2576. You would always accept the lowest tender unless there was some special reason?—Unless there was some special reason. I only know two cases where the lowest tender has not been accepted.

ightkeepers' wellings : Description f,

2577. It think at meetings with the Advisory Committee criticism has been passed more than once upon the cost of cottages in particular?—That is so; that is one of the great points that they always urge.

2578. Will you tell us how the matter stands in your view?—Yes, Sir. As regards the accommodation: The maximum accommodation provided in a lightkeeper's dwelling-house in the Northern Lighthouse Service in cases where their family resides with them consists of one kitchen and three bedrooms, scullery, coal store, provision store, privy, ashpit, and a washing house, which is shared by all the families at the station. Each of the four rooms measures about 12ft. by 13ft. by 10ft. high ,the total area, including the offices, being about 1,081 square feet of floor space for each house. As these houses must be large enough to accommodate a keeper, his wife, and in some cases as many as six or seven children, the Commissioners do not think less accommodation than a kitchen with three rooms could be provided with any regard to health and decency, especially as the visiting officer and mechanics, when any repairs are required at the station, have to be accommodated in the houses for a week or two at a time, no separate accommodation being provided for them. I may say I have nothing to do with the accommodation; that is a matter which is fixed by the Commissioners and their advisers on these points, I have nothing to do with it; they specify what accommodation they want and I prepare the plans. Then construction: The dwellings are built of rubble masonry quarried on the spot, or if not obtainable, of brick in cement and rough cast or harled, with dressed freestone lintels, sills, scontions, corners and copes, the dressed stones being made of as small a scantling as possible, that is to keep down the cost; larger stones cost more and small stones cost less. For over sixty years the houses in the Northern Lighthouse Service have been constructed with no architectural embellishment, either inside or out, the sole endeavour being to make them wind and water tight. The walls are made a few inches thicker than would be necessary in a sheltered position, and flat roofs covered with concrete and Val-de-Travers in place of slates are adopted in exposed places, and these are the only extras which could be dispensed with in less exposed positions. Flat roofs have been used in this service at practically all exposed places since the Northern Lighthouse Board was established (lead being used in the early days), as it is found that slates are too easily stripped off the roofs by gales, and to effect repairs at such remote places as the most of our exposed houses occupy would entail a heavy expense. At some of our exposed stations, soon after 1854, when the advisers of the Board of Trade took a very strong view about the cost of the construction of houses, some of the houses then were built in exposed places with slate roofs, and otherwise of a rather inferior class. Well, the result is, we have very heavy expenses in repair of those now, but we are not interfered with now in that way, and our recent houses cost very little for repairs at all; I do not think it averages above £5 or £6 a station at the outside, and that covers roofs and roads and walls, and everything connected with the station.

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2579. I suppose the initial expense of the flat roof is considerably more than that of the slate roof?—It is—if you can make the roof with one ridge—between £35 and £40 per house additional. If you cannot do that, if it must be a double-ridge roof, being too wide a span, then it is just about the same price as slates. The walls are made thicker and built with cement in place of lime mortar, because thinner walls in such exposed places are liable in storms to be thrown down or damaged during construction before the roof can be put on to support and protect them, a source of trouble and expense not unknown even with the heavier walls. Often, if a heavy gale comes on while the buildings are being constructed, the walls are twisted with the force of the gale before the mortar can dry. The positions where the dwellings are placed are necessarily very exposed, because naturally the best site for the lighthouse tower is the most exposed in the neighbourhood, and the dwellings must be placed as close to the tower as possible to facilitate the passage of the keepers to and from their duty in the tower. We cannot put them in any shelter, they must be kept out in the most exposed part of the headland. Wherever it may be, they must be close to the tower. It is difficult for anyone who has not experienced it to conceive of the weather these houses have to withstand during on-shore gales. In their elevated position they encounter a force of wind much greater than is experienced at lower levels, and there is absolutely nothing between them and the sea to afford the slightest shelter, while the wind raises sheets of water from the sea which are driven with hurricane force against the buildings, with the result that the houses may with little exaggeration be said to be at such times almost submerged, the courts and roofs filled and standing several inches deep in sea water. Thin-walled, slated-roof houses, in such circumstances, would become uninhabitable in a very short time. The strength of the wind in some of these stations is tremendous. Pieces of stone are hurled up against the windows, carried by the force of the gale from the face of the cliff, the wind coming up the cliff and rushing past the exposure is tremendous. A serious item in the expense of the houses in many cases is the foundations. Most of our headlands are covered with peat to the depth of three to ten feet, so that the walls have to be brought up from that depth, with the result that in some cases, such as Noss Head and Tiumpan Head, there is actually nearly as much walling below the surface as appears above, almost doubling this, the heaviest part of the work. The houses are substantially built, and though carefully built under strict inspection, there is nothing extravagant about them. They would, if erected in Edinburgh or Glasgow, probably cost about 6d. per cubic foot, but of course in out-of-the-way places, in which most of our exposed stations are placed, a very considerable increase of the cost must be expected, and the price has sometimes been as much as 1s. 2½d. per cubic foot. The work is invariably executed by contract, the lowest tender being almost without exception accepted. The following are the principal causes for the high rates contractors find it necessary to ask for the work. At few of our stations is it possible to find lodgings for the workmen near the work, and the contractor has to erect temporary bothies, stores, and stables, etc., for the accommodation of men, material, and horses. In most cases the material and plant have to be brought by sea, transferred to and landed in open boats on the shore, and then carted to the site. Contractors find it necessary to allow a considerable margin for insurance of the material during transit to the site, for loss and damage caused by the frequent handling of the material, for delays caused by bad weather, both in landing the material and the impossiblity of the men working in such exposed places in wet and stormy weather; they have also to allow for the constant attendance of a really responsible foreman, as being so remote they cannot give the work anything approaching constant personal attendance. A few examples of recent cases will illustrate these points:—Sumburgh Head in Shetland—the nearest town is Lerwick, twenty-seven miles distant. All the material, such as cement, timber, ironwork, etc., has to be brought from the South (Leith) 320 miles distant; it must either be taken to Lerwick and carted the twenty-seven miles or landed from the vessel that brings it in small boats in a neighbouring bay, from where it is carted to the site two miles distant and up to a height of 250 feet. Cape Wrath—here the nearest village—is thirteen miles distant over an arm of the sea. The material, as before, had to come from the south (Glasgow, 360 miles); it could be landed only in fine weather on the slip three miles from the site, and thence carted up to the lighthouse at an elevation of 350 feet. Similar descriptions apply with more or less force to such places as Island Glass, Noup Head, Tiumpan Head, Tod Head, Killantringan, Noss Head, Dunnet Head, and only in a less degree to Holy Island, Barnsness, Breasclete, etc., at all of which dwellings have been erected during recent years. At all new stations roads have to be formed, sometimes several miles in length and over difficult ground, water supplies provided, drains cut, and often landing slips formed; while cottages erected in a village or town have merely to be connected up with the water supply and drainage system, and need no special roads or landing places. It cannot be a matter of surprise then that houses erected in such situations cost on an average about £1,000.

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2580. Would that £1,000 include the cost of the roads?—Yes, over all.

2581. Everything?—The cost per house at Cape Wrath was about £1,153, at Killantringan £840, Tod

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Head £850. In the few cases where houses for light-keepers have been erected in comparatively easy and sheltered positions, such as Port St. Mary, in the Isle of Man, Oban, Stromness, though by no means cheap places to build in, the cost per house has fallen to between £580 and £700, the accommodation provided being the same as in the other cases, viz., kitchen, three rooms and offices, with the addition of a bath-room.

2582. What would it cost to erect a cottage of that kind in the neighbourhood of Edinburgh or Glasgow, say?—I should think about £450 or £500.

2583. That is with the flat roof and the thicker walls?—Yes.

2584. An ordinary cottage with this accommodation would not cost anything like that?—I cannot tell you that just at the moment. I have given the means of doing that, the cost is about 6d. a cubic foot.

2585. That is allowing for the difference in the character of the cottages?—Yes.

2586. An ordinary cottage such as would be erected in the neighbourhood of a town would not cost that sum?—Oh, no; what I meant was that that house built in Glasgow, the house we build of the necessary strength.

2587. And with flat roofs?—And with flat roofs.

2588. Have you been able to check your expenditure by comparing it with expenditure on other cottages similarly placed?—Yes.

2589. Lloyd's, for instance?—Yes, I have here a statement of that.

2590. Will you let us have that statement?—The coastguard houses have been cited as being erected on a less expensive scale. Lloyd's have recently created houses at Dunnet Head—that is one of our stations—to be inhabited by the coastguard, the details being submitted and approved by the Admiralty, and there the accommodation is practically the same as that of the Northern Lighthouse houses, and the cost has been about £1,029 per house. Lloyds' are also erecting houses at St. Abbs' Head—where we also have a lighthouse station—a comparatively easy place, and there they are providing five rooms per house in place of four, the rooms being rather smaller in area, the lowest tender received amounts to £800 per house. They are also erecting stations at Butt of Lewis and Cape Wrath, with five rooms in each house, and the lowest tender received in each case amounts to about £1,100 per house.

2591. Were those figures supplied to you officially by Lloyds'?—No, Sir, I am carrying out the works for them; they came to me because they found the houses they had already erected in exposed places were unsatisfactory. I should explain, of course, that the Admiralty Engineers have gone fully into the details of each of these, and have made alterations and suggestions, and we have had several schemes to try to reduce the cost, and in fact more than once we have re-issued the schedules to the contractors to see if we could not get lower prices, but it is no use.

Staff: Cost of.

2592. (*Mr. Ennis.*) Could you give us a return of the total cost of the engineering staff? You gave us some details as to the amount of your own personal remuneration?—What I gave includes the whole staff; that is the whole engineering staff of the Commissioners of Northern Lighthouses. It does not go to me personally. I have to remunerate my brother and the whole of my staff from the payment made to me.

2593. That covers the entire staff?—The entire staff, yes.

2594. With regard to travelling expenses, of course I take it when you are visiting a lighthouse you have the service of one of the Board's steamers?—When possible.

2595. And a Committee of the Northern Lights go round and visit these stations themselves?—Yes, they do.

2596. How many steamers have you on the Commission?—We have four.

2597. And would it be correct to say that one of these steamers would be required for your visit, that would occupy about the time of one steamer?—Oh, dear me, no.

2598. Not so much as that?—Oh, no; a very short time.

2599. I mean not your own time, but your assistants' time?—I should think about perhaps six weeks at the outside.

2600. (*Chairman.*) In each year?—Yes, as a maximum, for we inspect most of the local harbour lights by railway, and some of the main stations.

2601. (*Mr. Ennis.*) That would cover the entire time expended with the steamer and her crew in inspections?—Yes, for the engineering inspection.

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2602. Now, you say in recent years the Commissioners as a rule frame their estimates and apply for funds to the extent of from £20,000 to £25,000 per annum for the purpose of new works. Was there not a question some years ago of a witness on behalf of the Northern Lights stating that a sum of £10,000 per annum would be more than sufficient to estimate for new works, but that your Board disowned it?—I think Sheriff Guthrie Smith gave that.

2603. (*Sir Frank Adam.*) That was Lord Courtney's Commission?—That was Lord Courtney's Commission.

2604. They reported that £10,000, in their opinion, would be a satisfactory amount to spend annually?—He stated it, and I think the Commissioners themselves——

2605. Adopted that?—No, I think they repudiated that.

2606. That was in 1896, was it not?—Yes.

2607. (*Mr. Ennis.*) And your statement now is that you ask each year £20,000 or £25,000?—Yes, Sir.

2608. How much on the average have you got?—Something very like that, I think; I think it is £21,000, yes, I am sure it is, it is £21,000 we have got.

2609. Each year?—Yes.

2610. And you estimate that £21,000 is not an exorbitant sum to expend on new works, and that you would need fully that amount in the future?—That is the view of the Commission.

2611. That you would need fully a sum of £20,000 to £25,000 to provide for new works in order to have your service effective?—Well, in order to improve the lighting of the coast and to make it what we think is necessary.

Illumin Advant and disa vantage electric

2612. Well, you have told us very distinctly that the electric light is the best light?—Yes, that is my opinion.

2613. You do not approve of adopting it because of its cost?—That is so.

2614. But you would hold that the electric light is the best light?—That is my view.

2615. It is the best illuminant?—That is my view.

2616. That being so, as far as my information goes, I think I am correct in saying there are only five lighthouses on the coast of the United Kingdom which are electrically lit?—It is about that.

2617. One by you?—Yes, one by us.

2618. Four by the Trinity House?—Yes.

2619. And I think none in Ireland?—No, I do not think there are any.

2620. That would be five on the coast of the United Kingdom, but on the French coast there are 20?—Yes.

2621. Therefore, irrespective of cost altogether, the lighting of the French coasts is superior in that respect to the lighting of the British coast?—Yes, but it must be kept in view that the French Lighthouse Authorities have dropped the electric light. With a rush they went into the electric light at the time it was first adopted, and every important light was to be made an electric light. They put in these electric lights. Now they have dropped it; recently they have put in none.

2622. They may not have increased the number, but at the present day there are 20 electric lights in France to 5 in the United Kingdom?—Yes.

2623. That is in the proportion of 4 to 1?—Yes, but I do not think M. Ribière would put in an electric light to-day.

2624. (*Chairman.*) Given an electric light and an incandescent light of equal candle-power, do you consider the electric light is superior?—No; the point is we can get so much higher candle-power with electric arc than by an incandescent oil light.

2625. (*Sir Frank Adam.*) May I put one question in regard to the adoption of the electric light by the French? I suppose they may possibly have adopted the electric light when the power required from the electric light was more than was required at that particular site at the time they adopted it?—No doubt they made a scheme for the whole coast. They were going to convert every important light to the electric light; the whole coast was to be lighted with electricity.

2626. From the mere fact of them having electric lights, it does not follow, coast for coast, they are better lighted than we are?—No. I am quite sure that now they are not putting them in. They have changed their minds again.

2627. (*Mr. Ennis.*) But, so far as the lights go, light for light, their 20 electric lights are superior to 20 incandescent lights?—I would need to see the apparatus they put in before I could give you an opinion of that kind.

2628. Your own lights; the highest candle-power that you have of an incandescent light is 881,000, whereas your Isle of May electric light is 6,000,000?—That is so.

2629. You have stated that the Irish Lights Board favour gas?—At that time; I was merely explaining how the thing arose.

2630. Was it not, as a matter of fact, that a Mr. Wigham in Ireland patented some invention of his which referred to gas burners?—That is so; he patented gas burners.

2631. And the Irish Lights, I assume, took up this invention?—That is so.

2632. You have effected a saving on the oil lighting by the incandescent of 50 per cent. of the oil, and an increase of nearly 250 per cent. in light?—Yes.

2633. And with regard to the French estimate of the candle-power of their electric lighthouses, we are led to believe that they have not adopted the photometric method which was established by the experiments on the South Foreland, and that their estimate should be taken as some 30 per cent. over the actual?—Yes, I would say at least that. It is not a material point, the mere figure stated for the candle-power of the light, as far as the sailor goes.

2634. And as far as your experience goes for unattended lights, acetylene is superior to any other illuminant that you have tried?—Well, I would not say than compressed oil gas. I am not sure about that. You see, we are still in our infancy with acetylene, but certainly it is better than the unattended oil burners.

2635. You have given us some interesting information with regard to the two lightvessels; two, I think you said?—Two, yes.

2636. At Otter Rock and Skerinoe?—At Otter Rock and Skerinoe.

2637. These are practically an experiment. They are practically lightvessels, which are unattended and automatic in their operations?—They are so, but are past the experimental stage.

2638. And you say the only difficulty with regard to those vessels is that you cannot have an efficient fog-signal, you must depend upon a bell?—That is so.

2639. But would a bell which would be mounted on the top of the mast of a vessel of this kind carry sound further than a bell at a lower level in a buoy?—Oh, yes, it would. It is not on the top of the mast; we erect a separate standard on the stern of the boat.

2640. Are you under the impression that the higher you can mount your bell in your lightvessel, the further the sound will carry?—Oh, undoubtedly, because with a heavy sea, or a swell when the bell is low down, the sea interferes with the transmission of the sound from the bell.

2641. Do you think then that those unattended lightvessels for minor lights, and in situations such as, say, between your coast-lighting arrangements and the lighting of harbours, coming as a kind of intermediate light between the large coast lights and the lights of the Harbour Authorities, that they would be efficient in such a position as that?—That is our view.

2642. Could you put in the dimensions of these vessels, and the cost of building them?—Yes, certainly.

2643. Would you kindly give us the dimensions?—Yes.

2644. £30 or £40 per annum, you say, it would take to maintain them?—Yes, about £9 or £10 worth of gas, and the rest for repairs.

Fog-signals: Danger of areas of silence of,

2645. With regard to questions our Chairman has asked you on a very important subject, with regard to this area of silence, we have had from many witnesses references to this, and it seems to be a very important subject, because we are informed that this area of silence varies, and I think you say also that there is some condition—be it what it may, the temperature of the water or some other cause—that makes the locality in which the fog-signal sounds perfectly to-day have an area of silence to-morrow?—There is no doubt about that.

2646. And, therefore, so long as scientists are not in a position to precisely state what the cause is, and undertake measures to remedy the defect, the danger to mariners will continue of getting into an area of silence, and believing that they are not within measurable distance of such danger as the fog-signal may be taken to indicate?—That is so.

2647. And therefore you would consider, I take it, that the expenditure of money on experiments for the purpose of endeavouring to find a solution of that difficulty would be money well spent?—Yes, if somebody came forward with a suggestion of what might be done to effect that.

2648. But does your Board or any other Lighthouse Authority, to your knowledge, offer any inducements to inventors or to scientists to solve the problem?—Only this, Sir, that if it is successful we will adopt it; that is all.

2649. But it seems to me in the case of lighthouses that it is different from an invention, say, of general utility. If a man makes an invention of an article of general utility, if one person does not buy his patent from him somebody else will, but if he designs something for a lighthouse, and if the Lighthouse Authority will not pay him adequately for his invention or his trouble, he has no other market?—But I think the Lighthouse Authorities would be only too glad to pay him if he can produce what is wanted. I think there is no doubt about that.

2650. The incentive to inventors to get on the track of endeavouring to solve a problem such as that is not very great?—I really could not give an answer to that. I do not know really whether it is or not.

Diaphone.

2651. With regard to the diaphone, of course you watched the experiments, and you will watch the future experiments, I take it, with regard to that particular instrument as to how it affects the area of silence as well, because it seems to be a most important subject?—It is indeed; of course I will Of course the thing, if it ever could be carried out, is submarine signalling. From the experiments we have already tried ourselves, I should like to see that done.

Submarine signalling desirable.

2652. Questions have been put to a previous witness upon that subject. The submarine signal means the necessity of establishing an installation on board which, though perhaps not a very expensive installation, means that it must be installed if the vessel is to have the benefit of submarine signalling?—That is so.

2653. I mean that it is not an outside agency which would benefit all shipping. It will only benefit shipping which are properly fitted?—That is so.

Lightkeepers' Dwellings:

2654. With regard to the dwellings, could you give us some little information. First of all as to how many of these dwellings that you spoke of have been constructed of rubble masonry from stone quarries on the spot, because if you have stones that you can quarry on the spot the weight of the other materials that would be necessary to construct a house would not be very large, and it ought to reduce the cost in my estimation very considerably?—It would be a great deal more if we had to convey all the stone to the site.

Mr. D. A. Stevenson.

5 Dec. 1906.

Description and cost of,

2655. It is a subject I have some experience of, and the cost of 1s. 2½d. seems enormous for a building of this kind. What thickness were the walls of these buildings?—Two feet.

2656. But you do not estimate the building of rubble masonry 24 in. walls, in the vicinity of Glasgow, would cost £400 or £500?—Yes, with flat roof and cement mortar.

2657. How is your flat roof constructed?—It is iron beams and concrete and Val de Travers.

2658. Rolled iron joists?—Yes, and a very thin layer of Val-de-Travers.

2659. And yet you estimate that that would cost as much as £500 or £600?—Yes.

2660. Prices must be very much higher than in Ireland. The value of masonry 24 in. thick in Ireland would not be so much?—This is built in cement.

2661. The cost of a perch of masonry built in lime mortar would not be more than 11s., 8in. thick?—A perch, taking an average of three stations, costs 16s. 2½d. for cement mortar, and 11s. 9½d. for lime mortar; that would be the cost with us at out-of-the-way stations.

2662. It seems to me to be a very high price?—We cannot get it any cheaper.

2663. Prices vary in different countries. How can you arrive at the cubic contents of the houses that cost these figures that you give us. I mean is the method of arriving at it the same as mine would be, that is to take the cubic contents at half the depth of the foundations and half the height from the ridge to the foot of the roof?—That is so, practically; for a slated roof we take half the height of the ridge to the under side of the base course, and for flat roofs from lower side of plinth to under side of base course.

Engineer to Northern Lighthouse Board: Duties of,

2664. (*Admiral Henderson.*) I think you said just now that you have nothing to do with the administration of the Board?—No, Sir.

2665. You have only to do with the engineering work of new works and very large repairs?—That is all.

2666. Of course you are acquainted with the administrative system?—I am.

2667. Are you acquainted in any form with the administration of these various bodies that you have enumerated on page 1?—Yes.

2668. The Lighthouse Authority for the Indian Government and Chinese, Newfoundland, Japanese, etc.—do you know anything about their administrative systems?—No, only those at home.

2669. You are acquainted with the Trinity House and the Irish Board?—And with the Clyde Lighthouse Trustees, not the Clyde Trustees, they are two different bodies.

2670. But that is comparatively small?—Oh yes, quite small.

2671. Have you any idea what it involves—what is the annual cost of the system altogether—what do they pay. Do you know what is paid at all for the lighting of the Clyde?—No, but I could put in a statement for you.

2672. And the number of lighthouses?—I could get that.

2673. (*Sir Frank Adam.*) Over a series of years?—Five years.

2674. (*Admiral Henderson.*) Yes?—I shall examine the accounts and separate from the lighthouse maintenance what had to do with the dredging of the channel.

2675. Are the lights up to date?—Yes.

Inspection of Scotch Seamarks by Trinity House and Board of Trade.

2676. How long is it since the Elder Brethren and the Board of Trade inspected any of your lighthouses and sites. You mention here at page 2 that the President of the Board of Trade did, but how long ago is that?—Lord Ritchie, I think, was the last. I cannot give you the date.

2677. How many years ago. Is it correct to say not recently?—Oh yes, comparatively recently. Nearly every President of the Board of Trade has visited us.

2678. You do not know when the Elder Brethren were up last?—I cannot give you the dates. It is not very long ago. Would you like me to let you know?

New W Now urgently needed.

2679. Yes, let me know, because it has been asked about. Are there any other new works of pressing necessity now required?—Yes, the Commissioners think so.

2680. That is I mean after this next year's estimates have been put in; there are still more works of pressing necessity?—Yes.

2681. Will you indicate them?—Yes, certainly.

2682. And the amount that you would require to spend on them. I think I would rather have that; not to waste time by detailing it here, but put it in as a return what you consider absolutely essential?—What the Commissioners consider.

(*Sir Frank Adam.*) Do you mean what he considers essential for the complete and final lighting of the coast of Scotland?

2683. (*Admiral Henderson.*) Not what we would all like to have, not an ideal, but what is really an absolute necessity for all practical purposes?—Yes.

2684. I should like also to know not only the Commissioners' ideal but your own?—Yes.

2685. On the question of putting up new works, is there any local or political interest brought to bear on the Board?—No, County Councils apply, but otherwise none so far as I know. As a matter of fact, I am sure there is nothing of that kind.

2686. When you come to a question of improvements a little further down I want to ask you, are there many improvements of this character still required for the substitution of catadioptric?—Yes, there are 13 of these lighthouses still, and several fixed dioptric lights.

2687. Is there much more to do?—Yes, a good many. I will put them in along with the other list.

2688. Is the whole of the sum required for that improvement put down in the estimate for new works for the year and submitted to the Board of Trade?—The whole sum? I do not quite follow.

2689. Well, have you two sums, one this estimate for the expenditure for the year by the Scotch Board, the Commissioners for Northern Lighthouses, works in progress and works proposed. Now do you, in addition to that, spend any money on improvements?—No.

2690. The whole of the sums that would be spent in improving these lights, as mentioned in this paragraph, would come out of that and not the other?—Would come out of that and not the other.

2691. Now, I would say the same as to fog-signals?—Yes.

General Lighthou Authori Relative efficienc

2692. Now, as regards apparatus, do you think that you are ahead of the Trinity House and the Irish Board?—No, Sir.

2693. You are on equal lines right the way through?—Quite.

2694. Is the candle-power measured by the Trinity House system?—Not the Trinity House; it is the combined system of the three Boards.

2695. Then, again, you speak about improvements that you have introduced, a great many improvements. I want to know whether you considered that you were ahead of the Trinity House in those respects; were you ahead of the Trinity House in improvements?—These certainly were introduced by us.

2696. They were?—Yes, certainly.

2697. Is there a little rivalry between the Boards?—No, I do not think there is any rivalry.

2698. The length of time, which you say is a very great thing here, has that been adopted by the other Boards?—Yes, certainly.

2699. Then I would ask again about the use of incandescent oil: Were you before the other Boards in this respect?—No, I do not think so; just about the same time, I think.

Illumin Adoptio gas.

2700. I have another question to ask: Has the system of gas-lighted lighthouses been adopted anywhere else?—Oh, yes.

2701. By the other Boards?—Yes, certainly.

2702. The gas-lighted lighthouses?—Yes; lighthouses or beacons lighted with gas they all have, but they have not our system of gas lighting with one keeper.

2703. And also your small unattended lightvessel unwatched?—No, they have not got an absolutely unattended lightship; I think they have got a partially unattended one.

2704. Do you know whether the position of your unattended lightvessel is specially favourable to it or do you think there are positions on the Irish and English coasts that would be favourable?—I have not gone into that. It would not do as a substitute for the majority of their lightships, as the unattended vessels can have no efficient fog-signals.

Acetylene gas only employed by Scotch Board.

2705. And as to acetylene, do you know whether anything has been done by them with regard to acetylene?—They have not introduced it.

2706. They have not introduced it?—No.

2707. As to your fog-signals and engines, are you ahead of the other Boards in regard to those?—Well, I think our siren is better than theirs.

2708. (*Chairman.*) Have you adopted Lord Rayleigh's form of siren?—No, at the experiments it did not turn out so well as was expected.

2709. (*Sir Frank Adam.*) What siren?—Not a siren, a form of trumpet.

Experiments: Communication between Lighthouse Boards as to,

2710. (*Admiral Henderson.*) Are you in communication with other Boards as to what experiments are necessary?—I do not know that we have ever had any absolute consultation with other Boards.

2711. You do not put your heads together to say that experiments should be carried out in this direction or that direction?—Well, I think I may say that was done in the case of the South Foreland experiment on fog-signals, and also at St. Catherine's practically I think it might be said.

2712. Your action is independent so far as regards the experiments that you carry out?—So far.

2713. But the other Boards, of course, know, as you say here, about the experiments at the South Foreland and St. Catherine's. St. Catherine's were the latest, were they not? In what year were they?—1901.

2714. I understand you do not manufacture anything at all?—No, we have no workshops.

2715. Would there be any advantage in your manufacturing any instruments or machinery?—No, I do not think so.

2716. You know about the Blackwall works of Trinity House?—I have been in them.

2717. Do you believe in the efficiency of that system?—I do not know as to that.

2718. You are not in a position to judge from the administrative point of view?—No.

2719. Do you know what is the average amount of the Scottish light dues?—I am sorry I cannot give you that, Sir, you will get that from the Secretary.

2720. I am going to ask you a question from the national point of view. With your experience of the whole lighthouse system, generally, do you think that if the three Lighthouse Boards were put under one control and management with a properly decentralised system many economies could be secured?—That is a question I would rather you put to the Commissioners when they come before you.

2721. You have your private opinion, I suppose?—No, I cannot say I have ever considered that; I would like to see a scheme, and consider it before I could reply.

2722. Have you ever troubled your head about the whole question of the lighthouse administration at all?—No.

2723. Have you any suggestions to offer which would improve the system and further efficient and economical administration of the functions now appertaining to the three Lighthouse Boards?—No, I have no suggestion.

2724. Is the control of the Trinity House over your Board necessary, such as is exercised?—Would you not ask that, Sir, from some of our Commissioners. I think that is a question you should put to them.

2725. You are a man with enormous experience: you are an outsider, so to speak?—I can give you the facts, the results of our dealing with the Trinity House, an opinion of that kind is a thing you must take from the Commissioners.

2726. As to the annual cost; the total annual cost of the work in your department is only what we see in these estimates, these sums you gave just now for the salaries of yourself and staff?—Yes, Sir, that is so.

2727. Have you ever compared the expenditure of the Trinity House and the Irish Board with those of yourselves?—In regard to new works.

2728. Anything to do with administration?—No.

2729. But you are acquainted with their systems of administration, I suppose?—Yes, I am to a small extent familiar with it.

SEVENTH DAY.

Thursday, 6th December 1906.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Mr. C. W. Scott, called in; and examined.

Mr. C. W. Scott: Qualifications and appointments of,

2730. (*Chairman.*) You are engineer to the Irish Lights Commissioners?—Yes.

2731. What are your qualifications? Are you a member of the Institute of Civil Engineers?—I am an Associate Member of the Institute of Civil Engineers.

2732. When were you appointed?—I was appointed Engineer in October, 1900.

2733. Have you held any office under the Irish Lights Commissioners previous to that?—I was appointed Assistant Engineer in September, 1894.

2734. That was your first connection with the Board?—My first connection with the Irish Lights was when I was appointed Assistant-Engineer in 1894.

2735. Will you describe to us the personnel of the Engineer's Department?—Well, I have one assistant-engineer, and there is one permanent draughtsman, and a chief clerk of works. The chief clerk of works is rather an anomaly. He chiefly works in the office, but his principal duties are to take personal charge of all the workmen doing work for the Commissioners direct on the coast. Whenever there is any work to be set out on the coast, he goes out to set it out. He brings the men out, and shows them what to do. I give my directions to him, and he gives them on to the men who are actually doing the work.

Engineer's Department of Irish Lights Board: Personnel and duties of,

2736. That is to say, when the Commissioners are carrying out work themselves?—Yes.

2737. He is employed on any particular job?—He is

Mr. C. W. Scott.

6 Dec. 1906.

Engineering Department of Irish Lights Board: Personnel and duties of,

the man who goes out. For instance, if we are starting work on a rock station, he will go out and spend a week on the rock, and get the work under way, and then he will go and pay two or three visits to the work whenever we think it necessary while it is going on, to keep things straight, and make sure that the work is being done in an economical manner.

2738. Is that the whole personnel of the department?—No; in addition to that, I have a clerk. He is not on the regular permanent staff; that is to say, he is not entitled to pension. In addition to that, at Kingstown there is a foreman mechanic or mechanical assistant. There is rather a doubt as to what his proper title is. He looks after all the work in the shops at Kingstown, and he inspects materials, everything in connection with iron and steel work, and in addition to that I have to lend him to the Secretary or Inspector's department to look after the machinery of the steamers. The machinery of the steamers is not under me personally at all; I have nothing to do with it, but my mechanical assistant looks after it for the Inspector in the case of the "Ierne," and for the Secretary in the case of the two big ships.

2739. I see; he belongs to your office, but he does work outside your office?—All orders to him are sent through me; I have to issue them to prevent conflicting orders going to him.

2740. He is responsible for the machinery of the steamers?—That is a thing that has never been perfectly clear to me, as to whether it is the Secretary or my mechanical assistant that is held finally responsible, but I think it is the latter. Whenever the Secretary wants anything done to the engines, or the boilers of the steamships inspected, he asks me to send the mechanical assistant to do it, but personally I have no responsibility in the matter whatever.

2741. I understand; really the responsibility lies with the Secretary, who borrows one of your officials for the practical work?—That is it, and in the case of the "Ierne," the small steamer which is used for attending the West Coast stations, the Inspector borrows my mechanical assistant for any work required to be done to her boilers or engines.

2742. Do you mean that the "Ierne" is not under the Secretary, and the other ships are?—The "Ierne" is under the Inspector, and the other two ships which do the general work on the coast are under the Secretary so far as repairs are concerned.

2743. And your mechanical assistant is liable to be requisitioned either by the Secretary or the Inspector?—Certainly.

2744. Are any orders given to him?—They just pass as a matter of form through me, to prevent us ordering him to do two things on the same day, and that sort of thing.

2745. That is all you have to say about the personnel of the Engineer's department?—That is practically all. There is a number of permanent workmen attached to my staff, but they are not on the office staff, and in addition to that we generally employ from two to four temporary draughtsmen.

2746. How many permanent workmen are there?—Well, there is a foreman lamp-fitter and an assistant lamp-fitter, a foreman carpenter, a foreman rigger, a blacksmith, an assistant blacksmith, a retort setter, and two painters.

2747. Are not the Kingstown workshops under you?—They are indirectly. I mean to say I am responsible for all the work done in them, but they are directly under the Superintendent.

2748. But the Superintendent acts under your orders?—He acts under my orders practically.

2749. When you say "practically," do you draw any distinction?—Well, what I mean to say is, if there was any difference between us at all I should get the Secretary to send him an order in writing. He is not on my staff; the bulk of his duties, which are looking after the stores at Kingstown, are not under me at all. Of course, all the workmen, both in the stores department and in the shops at Kingstown, are directly under his orders.

2750. He also is to some extent serving two masters. He obeys your orders, but he is immediately subordinate to the Secretary?—He is immediately subordinate to the Secretary.

2751. Does the arrangement work well?—It works very well. I have never known any friction, or anything of that sort to arise. It is a good thing in one way, because occasionally a difference of opinion arises, and it is a very good thing to have it thoroughly thrashed out.

Engineer to Irish Lights Board: Duties of,

2752. Now will you proceed to your own duties, please?—Do you want them in full detail?

2753. I should like those in full detail?—I have to answer all correspondence on all subjects connected with the maintenance in proper repair of all lands, roads, fences, buildings, lighting apparatus, fog-signal apparatus, gas plants, tools, instruments, machinery, cranes and derricks, flag-masts and signalling apparatus, wharves, boat landings, etc., in connection with all the lighthouse and fog-signal stations, beacons, perches and buoys, offices, workshops, stores, and buoy depôts; also the lanterns, lighting apparatus, and fog-signal apparatus, and machinery in connection with the lightships; order all materials, plant, tools, etc., in connection with the maintenance of above in proper repair, including all paints and oils, etc., required for the annual and quinquennial painting of above, and the replacing of worn and obsolete apparatus, buoys, moorings, etc. I am responsible to the Board for the efficient maintenance of above, and the accuracy of the character of all lights, signals, and day marks, in accordance with their published descriptions. I check the accuracy of all published descriptions of character of new lights and other marks and alterations in same. I test and am responsible for the quality of all oils, coals, and other consumable stores used for lights, fog-signals, etc., materials used in maintenance and repairs, buoy-chains and moorings, crane-chains and ropes, etc., etc. I employ, direct, and superintend all mechanics, labourers, and other workmen in the maintenance and repairs of above, in the workshops and on the coast. I certify all accounts for labour and materials employed for above purposes. I make surveys, prepare estimates and designs, and report to the Board on all special repairs, alterations, and additions required from time to time for above purposes. I instruct and supervise the work of all members of my Department employed in the office, workshops, and on the coast, and am responsible for their work, and the faithful and diligent discharge thereof. I have to make myself acquainted with all new apparatus, inventions, and methods relating to buildings, lighting apparatus, fog-signal apparatus, buoys, beacons, etc., and myself devise new apparatus, methods, etc., to test same when practicable, and to report to the Board on any of them that appear to me likely to be useful. I prepare programmes for, make all necessary preliminary arrangements, prepare apparatus, and carry out all experiments ordered by the Board, and report on the results obtained from such experiments. I superintend the instruction of light-keepers in the management and use of gas-making, lighting and fog-signal apparatus. I devise and prepare schemes, with plans and estimates, for all proposed new works, alterations, and improvements in the lighting, fog-signalling, beaconage, and buoyage of the coast, building of dwellings, stores, offices, workshops, etc., and report on same to the Board. I assist the Secretary in the drafting of letters and reports on technical subjects. When new works, etc., are sanctioned, I have to prepare drawings, specifications, bills of quantities, forms of tender, etc., and send them out to contractors; to report on tenders received, arrange contracts, employ clerks of works, choose sites, and arrange for purchase of land, supervise the work, inspect materials and apparatus, certify acounts for payment, and be responsible to the Board for the due fulfilment of the contracts. In cases where contractors are not employed, in whole or in part, I have to make all arrangements, order all materials, apparatus, etc., inspect same during construction, and when completed, employ foremen and workmen to carry out the work and bring the job to successful completion. I am held responsible for the due maintenance of the light or fog-signal, or such temporary lights or fog-signals as may be necessary during the progress of new works or alterations, and have to design, prepare, erect and arrange for the maintenance of such temporary lights and signals. When new apparatus, etc., is installed, I have to instruct the light-keepers in the use and maintenance of same, prepare and issue rules and instructions to guide them, and employ experts to do the work until such time as I am satisfied that the light-keepers are competent to do so without expert assistance. I certify all accounts for materials, labour, etc., in con-

nection with such new works and alterations. I prepare answers to all questions submitted to me on technical subjects. I prepare the annual estimates for all maintenance of structures and apparatus, special repairs, new works, maintenance of buoys, beacons, etc. I attend meetings of the Board and Committees when required, and accompany the Inspecting Committee on their annual tour of inspection. I condemn and arrange for the sale by tender of all obsolete, useless, and worn-out apparatus and materials which have been under my charge.

2754. Do your duties include periodical inspection of the lighthouses and seamarks, to see that they are all in proper working order?—I do that annually when I go round with the Commissioners. The Commissioners make an annual tour of all the lights on the coast.

2755. And you take the opportunity of going with them and seeing that everything is in proper order?—Yes, and of course there are numerous occasions when I visit individual lights in addition to that.

2756. (*Colonel Herbert.*) Is that all laid down in the regulations?—It is not all laid down in the regulations.

2757. There are regulations of the Board; do they contain any instructions?—Nothing in detail at all.

2758. (*Chairman.*) This is merely a summary that you have prepared for our use of your actual duties?—Yes.

2759. They are not laid down?—There is practically nothing laid down. I have never had any actual statement in writing as to what my duties are.

2760. Is it part of your work to attend meetings of the Board regularly?—Yes; well, not regularly, but whenever possible I am supposed to be in the office during the time the Board meetings are going on, and when anything crops up that they want me for, they send for me. I more often attend committee meetings than Board meetings.

New Works: Execution of, by engineer's staff or by contract.

2761. Are any works carried out by you and your staff?—Yes.

2762. As well as by contract?—I think on the whole more works are carried out by us direct than by contract. Whenever we are starting new works the whole question is gone into thoroughly, and if it appears to be a job on which it is likely that we will be able to get the work done at all economically by contract, we prepare forms of tender, get tenders in, and if any of them are lower than we know we can do the work for ourselves, we recommend them for acceptance. But if we know we can do it cheaper ourselves, I state so to the Board, and recommend them to get it done by our own men.

2763. Would you kindly put in a return of the various works which have been carried out by yourself and your staff during the past few years?—That is new works and repairs?

2764. New works and repairs?—There are a great many, I may say the majority of our jobs, in which portions are carried out by contract, and portions by ourselves.

2765. You are speaking now of new works?—Both new works and repairs.

2766. Both new works and repairs?—Any part of it that we think we can do more cheaply by contract we get a contract for.

2767. What we should like is a statement of the various new works and principal repairs carried out, let us say, within the last three years, distinguishing what has been done by contract and what has been done by the Engineer and staff?—And where a job has been done partially by contract and partially by ourselves, am I to say so?

2768. You had better distinguish so far as you can?—Thank you.

2769. And in addition to that, where work has been tendered for and the tender has not been accepted, we should like that made clear, and the amount of the lowest tender which was rejected?—All right, Sir.

2770. And the ultimate cost of the work as executed by the staff?—There is this to be said with regard to that, that it is practically impossible for me to give you that accurately, because by the method in which our accounts are kept, in order to meet the Board of Trade Regulations, there is no attempt made at what I might call prime cost. I mean to say, any one job is charged up complete, and there is no subdivision made of it at all.

2771. You are now referring to ——?—I may say, in a case where a portion of a job was put up for tender, and then we eventually decided to do it ourselves, because the tenders were too high, I could not give you accurately what it did cost us to do it. If it was a complete job I could.

2772. Well, where it is possible to do so, you can give us the information?—Where it is a complete job I could. That is for three years?

2773. Yes, three years, unless we make a written communication to you altering that term?—There are a great many of our repair works, perhaps the majority of them, for which we do not ask for tenders at all; for instance, putting new roofs on rock lighthouse dwellings, because our previous experience of getting tenders for such work is that the prices quoted are simply ridiculous; and, of course, preparing tenders and specifications, and getting in prices, take a lot of time and cost money.

2774. Repairs of that kind would not come under the general head of new works?—No, it is not under new works at all; it comes under the heading of special repairs, which I thought you wanted included. I have a statement here giving you a complete list of all the special repairs and additions during the last 10 years and all new works during the last 50 years, if that is any use to you.

List of, for last 10 years.

2775. I do not think we want a detailed list of the new works going back 50 years, but it might be useful to us if you have got there a list of the repairs for 10 years to have that list, and a similar list of new works; and give us such financial particulars with respect to them as you can, especially distinguishing those works which have been carried out by contract and those works which have been done by your own staff?—The great majority of them are partially one and partially the other. For instance, in altering a light in a lighthouse we will nearly always purchase the apparatus and pedestal by contract, and if there is to be a new lantern we will purchase the new lantern by contract. Then in the case of erection we generally ask the contractor whether he is willing to send in a tender for the erection at the lighthouse, but in nine cases out of ten they say they are not, because they do not know in the least what incidental charges will have to be met, and they nearly always ask us to either do the work ourselves, or let them send a foreman to superintend the work, the rest of the labour being supplied by us. All the work of pulling down the old lighting apparatus and erecting a temporary light, and so on, we invariably do with our own men. I now understand that what you want is a three years' return referring to our new works only.

2776. Well, if it refers to new works only, I think it ought to be a ten years' return?—I see. So far as giving you the total sums expended there is no difficulty about that at all; I have got that here. I can give it you now, but to look up to see what portions were done by contract and what portions were done by ourselves is rather a big question.

2777. Let us say three years?—I will give you three years' detail of the new works.

2778. Then I think we must have repairs included if it is three years?—Three years' new works and repairs.

2779. Important repairs, of course?—That means special repairs; what we get special sanctions for.

2780. (*Admiral Henderson.*) What we really mean is, that there is a large number of works carried out in addition to these proposals which are submitted to the Board of Trade?—Those are new works. We have spent on an average during the last ten years £18,000 on new works, and about £2,400 on special repairs; £2,466 is the average of the last ten years.

Average expenditure on.

2781. (*Chairman.*) Have the members of your staff special duties assigned to them?—Not very definitely; when they are originally appointed, they are told that they have special duties, but that they will be frequently asked to go outside them. The duties of the Assistant-Engineer are to carry out the instructions of the Engineer and assist him in any way he may desire with regard to any of the duties detailed under the heading of "Duties of Engineer"; to exercise

Engineer's Department: Duties of staff of.

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direct control over the drawing office and draughtsmen under the directions of the Engineer; during the Engineer's absence from the office he has to take his place, and carry out any or all of his duties as the Engineer directs before he leaves.

2782. And with regard to the other members of the staff?—The regular duties of the permanent draughtsman are to make surveys, prepare plans, designs, specifications, and estimates; to take out quantities, to get out orders for materials, set out work and supervise building operations, etc., on the coast under the direction of the Engineer. The duties of the chief clerk of works are to take direct control of foremen, clerks of works, workmen, etc., employed on the coast, particularly in connection with building construction and the quinquennial and annual painting; to inspect buildings, lands, etc., with a view to repairs, etc., and to report on same to Engineer; to draw up instructions to clerks of works and foremen, prepare detail drawings, set out work, get out orders for materials, and supervise the execution of the work, prepare estimates, take out quantities, order materials, and inspect and test building materials; to prepare the annual orders and estimates from the lightkeepers' demands; to assist in the general office work and correspondence and arrange the work for the Engineer's clerk. The duties of engineer's clerk are to typewrite the correspondence, reports, etc., file and register all papers belonging to the Engineer's department, make out orders, index the copy books, and generally assist the chief clerk of works. The duties of foreman mechanic are to take direct control of the mechanics employed in the workshops and on the coast under the Engineer's instructions; to inspect and test materials and apparatus at the contractor's works and after delivery as directed by the Engineer; to be responsible under the Secretary and Inspector for the upkeep and repair of the engines and boilers in the steamers, and to inspect same when instructed by the Engineer; to superintend the erection of apparatus and mechanical structures on the coast when directed by the Engineer; to assist and advise the Engineer in all matters relating to mechanical engineering as and when directed.

Salaries of,

2783. Will you state the salaries of the Engineer's staff?—The Engineer's salary is £800; the assistant-engineer, £300; permanent draughtsman, £200; chief clerk of works, £182 19s. 3d. These are all the salaries at the present moment.

2784. Not the maximums?—Not the maximums in all cases. The Engineer's clerk, £90 10s. 4d.; foreman mechanic, £300; foreman lamp-fitter, £150. Do you want the permanent workmen?

2785. No; I think that will do?—The foreman lamp-fitter is really a workman. The foreman lamp-fitter's duties are to direct the work of the lamp-fitters, inspect lamps, etc., on the coast, and work in contractor's hands, repair all lamps, etc., sent to the workshops, test oils and other consumable lighting stores under the Engineer's directions; carry out experimental and photometric work, and any other duties in connection with burners, lamps, apparatus, etc., as directed by the Engineer; to supervise the erection and repairs of lamps, burners, etc., on the coast, as directed by the Engineer.

2786. You have put in a list of new works carried out since 1850, and the special works carried out in the last ten years?—Yes; this is the new works; that is special repairs.

Lighthouses: Efficiency of, in Ireland.

2787. Will you give us particulars as to the efficiency of the various lights?—We have got 12 lights which are really first-class lights, which have been brought up to date, or are at the present moment undergoing improvements to bring them up to date.

1. Fastnet.
2. Galley Head.
3. Kinsale, Old Head.
4. Ballycottin.
5. Howth Bailey.
6. Rockabill.
7. St. John's Point, co. Down.
8. Blackhead.
9. Maidens.
10. Blackrock, Mayo.
11. Inishtrahull.
12. Aran Island, North.

2787a. What is the illuminant used in those cases?—They are all incandescent oil, with the exception of Howth Bailey, which is incandescent gas.

2788. Can you state the candle-power of those lights?—The Fastnet is 750,000. I had better not state the others off-hand; I can give you that.

2789. You can let us have a statement put in?—Yes.

2790. Is the Fastnet the most powerful of those lights?—The Fastnet is the most powerful.

2791. 750,000?—750,000; I can tell you the others roughly.

2792. Please put a statement in?—I can send you a return.

2793. You say all of these lights but one are lit with incandescent oil?—They are all incandescent oil, except Howth Bailey.

2794. The system of lighting by incandescent oil is of comparatively recent introduction, is it not?—Yes. In 1900 we began to experiment with incandescent oil burners, but we did not put any actually into use, I think, until the winter of 1902.

2795. And since then?—And since then we have adopted them largely.

2796. In the case of all your powerful lights but one?—All the twelve lights mentioned except Howth Bailey, the apparatus for which was designed before the adoption of the incandescent oil burner. If it had not been, the apparatus which is now at Howth Bailey would not be there. The apparatus for Howth Bailey was designed with the view entirely to using a gas burner, which was at that time thought to be still the most reliable form of lighting. The Commissioners have always been very strong indeed on the point that the most important thing with regard to lighthouses was that whatever light you had you should be perfectly certain that the full advertised power of that light is really given at all times, and they have rather fought shy of going in for burners which require very skilled and careful attention in order to keep them up to their full power. Some of the multiple wick-burners, which give the maximum candle-powers, cannot be left at all, and in the case of having a careless keeper, who neglects his duties, he must turn the lamp down before he can leave it, and the chances are that with ordinary human beings as lightkeepers it will frequently happen that your light will not be burning at full candle-power. With gas lights and with the incandescent oil lights, the light is perfectly safe burning at full power, and there is no inducement whatever to the keeper ever to burn it at anything else. For that reason, until the advent of the incandescent oil burner, the Commissioners were very strong advocates of gas, because of its being so immensely superior in reliability to any other form of burner then in existence.

2797. It is now generally recognised that incandescent oil is the best?—Yes; it is quite as reliable as gas.

2798. In any new installation, incandescent oil would be almost sure to be used?—Almost sure, except in the case of small unwatched lights, in which case probably acetylene or town gas would be used instead.

2799. Will you proceed to tell us about the lights on lightships, buoys and beacons. The list you have now given us includes all the lighthouses?—Oh, no; those are only the 12 lights which at the present day are really what I call first-class and economically efficient. There are other lights in positions of importance which should eventually be improved to render them economically efficient first-class lights.

1. Hook Tower.
2. Tuskar.
3. Mew Island.
4. Rathlin Island.
5. Tory Island.
6. Aranmore.
7. Rathlin O'Birne.
8. Eagle Island.
9. Slyne Head.
10. Aran Island, South.
11. Loop Head.
12. Tearaght.
13. Skelligs.
14. Bull Rock.

2800. How are those lighted at the present moment—with gas?—Well, Hook Tower is a fixed gas light at

Lighthouses: Efficiency of, in Ireland.

present. It could be converted to incandescent oil with considerable saving of money and improvement of power.

2801. Has that been proposed to the Board of Trade by the Commissioners?—No, not yet. The Commissioners have already converted three of their gas lights. They are going ahead by degrees. They are afraid to put too much before the Board of Trade, because they will not allow too much money to be spent on new works.

2802. What does it cost to convert a gas light into an incandescent light?—In most cases of conversion it is advisable to get a new apparatus; it pays to get it. Rockabill is one case where we converted the old apparatus, as it was suitable for the incandescent burner, and we simply changed the burners, and the cost there was about £125.

2803. Was that reckoned a new work?—I think Rockabill was reckoned a new work, but I do not see it down here in the list.

2804. (*Admiral Henderson.*) Rockabill in estimates for 1906-7 is down as for shore dwellings?—No, that is not the one. Oh, no, it was not; it was reckoned a special repair, and it cost £110 6s. 3d.

2805. (*Chairman.*) Where the apparatus has been changed, as well as the illuminant, you have always reckoned it a new work?—Yes; then we have reckoned it as a new work. The cost of that varies, of course, with the cost of the apparatus.

2806. But your policy is to convert many of these lights, but to do it gradually, in order not too spend too much money in a given year?—Exactly, because although it would be possible to tackle most of the lights on the coast, and you would make so much saving in maintenance that it would pay very good interest on the money expended, there is no machinery to do anything of that sort at all. We have not the staff. It would be a very big job to make a complete programme, and take all the lights on the coast as one job; to convert the whole of them into modern, efficient and economical lights, and it would also result in the sending away of so many lightkeepers. It is a thing which could not be done in a hurry.

2807. Even if you were to put it out to contract it could not be done all at once?—Well, of course, a great part of the thing would be done by contract, in any case, but what I mean to say is we have not got the staff to prepare the schemes. It is absolutely necessary to go into the case of each individual light, and prepare a proper and suitable scheme for that lighthouse.

2808. You mean if these changes could be effected at once, there would be an economical gain?—There would.

2809. But there would be great difficulties in effecting them at once, in consequence of the limited number of the staff, and also the necessity that would be involved of dismissing a great many lighthouse-keepers within a very short space of time?—Yes; and it is very questionable whether dismissing a great many lighthouse-keepers and having to compensate them would not run away with all the profit on the transaction. Tuskar is a biform 8-wick apparatus. Mew Island is a triform gas light. Rathlin Island is a fixed light with an 8-wick lamp. Tory Island is a triform gas light. Aranmore is a monoform 6-wick lamp. Aranmore is a case where there would certainly be no new apparatus wanted; the present apparatus would do very well, the cost of the change would only be about £120. Rathlin O'Birne the same. Eagle Island is a light which, personally, I think, probably ought to have a new apparatus. It is at present an occulting light. That is a question that has not yet been before my Board, and I am only speaking for myself. Slyne Head is a biform fixed light at present, and it could be converted by simply changing the burners at small cost. Aran Island, South, is a fixed light, and it is questionable whether it ought not to have a new apparatus and be made a flashing light. Loophead is an occulting light, which, I think, certainly ought to have a flashing apparatus. Tearaght is a biform double-flashing light, which could be converted by simply changing the lamps. Skelligs; we have this year put forward a scheme for the alteration of the Skelligs, which is at present an old catoptric light. The Bull Rock is really a very first-class light, but we are at the present moment engaged in carrying out some experiments to see if we cannot make a very big saving in cost of maintenance at a small expense. It is a question whether the introduction of the incandescent oil burner in the existing apparatus will give as efficient a light as the present gas burners. The duration of the flash will be considerably reduced. The experiments we are now carrying out are to test the proposed new burners of two or three different forms against the existing gas light, to see whether there is any real disadvantage in the shorter length of flash. If we find there is not, then it is proposed at once to go ahead with that, because it would mean a big annual saving—about £200 a year, I think. The lights of secondary importance, which have been brought up to date, or are actually in hand now, are:—

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1. Wicklow Head.
2. Kingstown East.
3. Dundalk.
4. Roan-Berehaven.

and the lights of secondary importance which could with advantage be modernised.

1. Roches Point, Cork, which is an occulting oil light.
2. Mine Head, occulting gas light.
3. Haulbowline, Carlingford, occulting oil light.

4 and 5. Inishowen; there are two lights, both of them catoptric.

It was proposed a few years ago to make an improvement at Inishowen, the proposal at that time being to do away with the two lights and substitute an improved single light, but the local people objected so very strongly to this that they were left alone, except for being slightly increased in power by putting in two wick burners instead of one wick burners. That is a pair of lights which certainly ought to be improved soon when money is available.

6. Fanad Point, Lough Swilly; we are proposing to take that in hand next year. The scheme has gone forward to the Board of Trade.
7. St. John's Point, Killybegs, is an old catoptric light.
8. Blackrock, Sligo, is a small fixed light which could be increased in power at any rate.
9. Broadhaven is a small fixed light again, which could be improved.
10. Blacksod Point is a small fixed light which could be improved.
11. Clare Island is a lighthouse which has been built on the top of a mountain, and which would be very much better if it were put somewhere else.

2810. That is an old lighthouse I think?—Yes, Clare Island is a very old lighthouse, and it is an expensive lighthouse to maintain, because I think the buildings were originally badly built, and the amount we have had to spend on repairs there has been very great. Then all the eleven lightships are now revolving or flashing lights of from 4,750 to 20,000 candle power with the exception of Blackwater, which is now being altered, and Skulmartin, which it is proposed to improve when the alterations at St. John's Point are completed. Experiments are now in hand with a view to testing dioptric apparatus of 40,000 candle power on lightships which the Commissioners propose to adopt if the experiments prove that any real advantage will be gained thereby. Fixed lanterns which can accommodate fourth order dioptric apparatus have been fitted on five of the lightships, and are gradually displacing the old objectionable form of rising and falling lantern. I think we were the first in this country to go in for the fixed lantern. They greatly reduce the power required to revolve the existing catoptric lights and make them much more reliable. They keep much better time in heavy weather. Up to about four years ago all lightship lanterns were lowered down on the deck in the day time, the idea being that they had to be lowered down to trim the lamps and then hoisted up again at night. This necessitated having the ship ballasted so as to ride equally well with the lantern down or aloft, which meant that it never rode as well as it could do in either position, and we find in practice, since we have adopted the fixed lantern, that the trimming of the lights is more easily done and as efficiently, without lowering the lantern on deck.

2811. Has that system been adopted by the other Lighthouse Authorities?—The Trinity House have adopted it. I do not know to what extent, but they have adopted it on some ships. I have seen one of their lightships which has a fixed lantern. I believe they adopted it immediately we did.

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2812. The Scotch Lights have only one lightship?—They have only one manned lightship. Then we have 31 of what I call harbour lights; they are all very small lights.

2813. Are those local lights?—No, they are not local lights; they are lights under the Commissioners, some of them are lights which ought to be local lights if there was any local authority to look after them, but in most cases there is not.

Harbour Lights maintained by Irish Lights Board.

1. Spitbank.
2. Youghal.
3. Dungarvan.
4. Dunmore.
5. Duncannon Fort.
6. Duncannon North.
7. Kingstown West.
8. Howth Pier.
9. Balbriggan.
10, 11, and 12. Drogheda, N., E., and W.
13 and 14. Carlingford Leading Lights.
15. Greenore, Carlingford Lough.
16. Ardglass.
17. Donaghadee.
18. Larne.
19. Dunree Head.
20. Buncrana.
21. Rotten Island, Killybegs Harbour.
22. Inishgort.
23. Straw Island.
24. Mutton Island.
25. Kilcredaun.
26. Scattery Island.
27. Tarbert.
28. Beeves Rock.
29. Samphire Island.
30. Valencia.
31. Crookhaven.

2814. Are there no Harbour Authorities in any of those cases?—In the case of Spitbank, at Cork, there is a Harbour Authority.

2815. Is there not a Harbour Authority at Killybegs?—No, I think not. Killybegs has a pier now, which was built by the Congested District Board, but the Killybegs Light is at Rotten Island, which is a couple of miles away from the town. At Carlingford there is a Harbour Authority, but we have four lights at Carlingford, of which one is a rock lighthouse at the entrance; another is at Greenore, close to the pier, which the London and North-Western Railway Company's boats run to, and the others are a pair of leading lights leading into the entrance channel.

2816. Was the Harbour Authority in this case established subsequent to the erection of the lights by the Irish Commissioners?—I think so. Well, certainly the old Greenore Light and the Rock Lighthouse of Haulbowline were established long before Greenore was thought of as a port at all It was simply a harbour of refuge and the entrance to Newry. The two leading lights were put up in 1870; that was when their erection was commenced. I think that the London and North-Western Railway Company came there at that time.

2817. Were the London and North-Western Railway Company a Harbour Authority?—Practically; I believe that they are the Carlingford Harbour Commissioners, who have a large number of lighted buoys there, which go right outside our outside lighthouse.

2818. Do you know under what circumstances it was that the Commissioners agreed to put up these lights, notwithstanding there was no Harbour Authority established?—Oh, I do not know at all; it was long before my day, so I know nothing about it, I am afraid. All the others are small. Of course, Ardglass and Donaghadee and Larne are all, you may say, in harbours; so is Dunmore; they are nearly all actual pierhead lights. So are Balbriggan and Howth. I think in nearly all of these cases these are lights which have come on to us from the old Ballast Board. They built the harbour and the light at the same time, I think. I fancy they are all Government harbours.

2819. Where a Harbour Authority has been established, I presume it is not the practice of the Commissioners to erect lights at the cost of the Light Fund?—Oh, no. I may say where a Harbour Authority is in existence, if they apply for lights or anything the Commissioners always tell them that it is a matter for them entirely; but, of course, we have a large number of those old lights which came to us from the old Ballast Board.

2820. And which you continue to maintain?—And which we have continued to maintain. And there is a very large number of those which could be converted into unwatched lights, but, as I say, it is a very big question. The Commissioners are attacking it gradually. We have a certain number of unwatched lights now:—

Unwatched Lights: Maintained by Irish Lights Board.

1. Mugglins Beacon.
2. South Burford Buoy.
3. North Burford Buoy.
4. South Briggs Buoy.
5. North Briggs Buoy.
6. Hunter Rock.
7. Chaine Tower Beacon.
8. Highland Rock Buoy.
9. Lough Foyle Buoy.
10. Rinalan Point Beacon.

and at the present moment we are engaged in erecting six new unwatched lights, at Sligo. Sligo is a case where we have old lights, which rather overlap the Sligo Harbour Authorities, but the Commissioners have always lighted the entrance into the river opposite Rosses Point, and the channel outside has completely changed now, so that the present lights are absolutely misleading, so they are doing away with one of the existing lights and putting in six unwatched lights. The cost of maintenance will be no higher, and the total cost of the works is only about £2,000. Then there are also at the present moment proposals to light the South Shear and Rosebeg Buoys. Do you want any statement at all, Sir, as to the Commissioners' policy with regard to apparatus?

2821. Yes; if you have anything to tell us on that subject we should like to hear it?—In the fifties the Commissioners were the first people to introduce the use of the Wigham Gas Lights, and 28 years later multiform dioptric apparatus, and their strong advocacy of the value of these lights, chiefly on account of their reliability, and not being dependent on the constant watchfulness of the keepers to maintain them at full power, was a very strong factor among the various causes that gave rise to the general improvement in the power of lights which commenced about this time and led to the famous South Foreland experiments. Although they are now gradually replacing most of these gas lights, it is on account of subsequent inventions which enable them to produce better results—which were then unobtainable—at a great reduction in the cost of maintenance. The Commissioners now install biform apparatus for all their most important lights, as they are satisfied that they have great advantages over monoform apparatus in most cases where great power is required. The principal advantages are: first, the enormous advantage of having the apparatus in duplicate, so that if any accident should happen to extinguish or reduce the power of one of the burners the light is not extinguished, but only reduced down to a minimum of 50 per cent. of its power. Secondly, a flash of greater power can be obtained by a biform apparatus with panels of 90 deg. or 100 deg. vertical aperture than from a monoform apparatus of the same cost and giving flashes of the same nominal duration. Thirdly, the duration of the flash of maximum intensity, which is the important part of the flash, is greater than that thrown from a similar monoform apparatus, with a complete set of prisms. Fourthly, the biform type permits the use of a form of lantern with intermediate cleaning galleries which obstruct no light and which enable the apparatus and lantern glass to be much more easily cleaned, which results in practice in the saving of considerable losses of light due to dirty glass, particularly during snow or heavy gales, when without the intermediate outside gallery it is almost impossible to keep the glass clean in a first-order lantern. When there is driving spume the glass gets so obscured very often as to cut down the light to less than one-fourth of its power, and where you have got a lantern about 14 ft. or 15 ft. high the keepers try to clean it with syringes and that sort of thing, but it is impossible to clean it efficiently, and by using intermediate galleries, by which they can reach the glass by hand, they are able to increase the power of their light by 100 per cent. on a very great number of occasions every year.

Lighting Apparatus Policy of I Lights Bo as to,

Early in 1900 the Commissioners commenced to experiment with incandescent oil burners, and shortly afterwards introduced the first efficient burner of that type which does not obstruct any of its own light above an angle of 60° below the focal plane. There had been one or two experimental burners made before, I believe, which had no overhead obstruction of the light, but this

was the first that was ever put into practice as being really efficient. This burner is as efficient as any, is probably the cheapest to construct, the easiest to manage, and the most economical of all to keep in repair; the cost of replacing burnt-out vapourising tubes—a heavy item with some burners—averages only about 12s. 6d. per annum. The burners are made in the Commissioners' workshops at Kingstown, such parts as can more cheaply be obtained from contractors being purchased from them. These burners are being installed in all important and secondary new lights, and are gradually replacing wick and gas burners in such old apparatus as they are suited to, with a great gain in power and economy. All burners, valves, lamps, piping, etc., are in duplicate and can be interchanged in a few seconds. A few years ago the Commissioners recognised that it was a mistake to vary the power of their lights according to the state of the atmosphere, and consequently they now burn all their lights at full power at all times, except in the case of eight stations, at which, owing to the nature of the burners used, the alteration would result in a very large increase in the cost of maintenance, and they hope to replace these apparatus by degrees, as they have already done several similar ones, with more efficient and economical apparatus which can be kept constantly at full power without extravagance. Constantly aiming at securing economy, where it can be done without sacrificing efficiency, the Commissioners in the case of Larne effected a reduction of cost of maintenance by combining a number of lights under the control of a single principal keeper and a sufficient staff of assistants, and are about to institute a similar system at Crookhaven. They have also introduced the use of electrical machinery to enable the keeper on watch in the lantern to ring the bells at Barr Point and Kingstown, thereby saving the cost of two assistants in the one case and one in the other. In a similar manner they are now preparing a scheme for working a distant explosive signal at Skelligs from the lantern, thereby saving the cost of an additional keeper. With the same object in view they are gradually converting lights to the unwatched principle, and erecting new lights which require attention only at long intervals, such as the Chaine Tower, Mugglins, Rinalan Point, Oyster Island, and the five new unwatched lights at Sligo, most of which will be equal to or greater in power than many of the old lights which require constant attendance. The new dioptric lights erected since 1902 are supported on mercury floats, and considerable improvements have been effected also in the clockwork machinery for rotating the lenses, which can now be accurately regulated while running. Great attention has been paid to the ventilation of lanterns, which has now been brought to great perfection. Attention has been given to the value of lighthouse towers as daymarks, and the colour has been changed wherever it was found that the existing colour did not show up well against the background. The Commissioners have constantly kept experimenting whenever opportunity offered with a view to obtaining more perfect results from dioptric apparatus, and habitually make careful photometric tests on all new apparatus, in addition to a thorough examination of the direction in which the light is thrown by each element of the apparatus.

2822. Is it your duty to carry out those experiments?—Entirely.

ncandescent
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2823. What do you estimate the saving to be by the use of incandescent oil?—Well, it all depends on the circumstances. It will vary. Where there is a four-wick burner in use the saving is a few shillings a year only, practically nothing; then where a six-wick burner is concerned you save over half the cost of oil, which would be about £20 a year. Going on to a case like Rockabill, a gas station, the saving is about £120. If I remember right the saving at some of the bigger gas stations will be as much as £250 a year.

2824. You are comparing incandescent oil with gas?—Yes; but comparing it with the old wick burners the saving on a four-wick lamp is a very small matter indeed. If a four-wick lamp were always burned at its full power, which it is supposed to be burned at, it would consume a great deal more oil in the year than it really does. On paper I mean you can show quite a considerable saving on a four-wick burner, but in practice you do not realise that saving because the keepers seldom keep these burners at their full power.

2825. I think we have evidence put before us by the Engineers of the other Lighthouse Authorities to the effect that the saving of oil was from one-half to two-thirds?—Well, when you go to anything above a four-wick burner.

2826. And that the increase of light was very great?—The increase of light is enormous. It is, roughly speaking, about four times the power. We have got a very careful record of actual true consumptions. I have been following very carefully what has been done with similar burners outside in France and in Germany, by the Mersey Docks and Harbour Board, by the Colonies, and so on, and all returns that I get shows that in these people's hands an ordinary 50 or 55 millimetre mantle burner has a consumption of one pint an hour—and some of the lights as a matter of fact go even less than one pint an hour; well, I know the burners that they are using, and I have very carefully tested some of them, and the makers of one of the best of them have carefully tested some of them, and we know to a certainty that when you are burning a pint, say, or less than a pint per hour, the candle-power of that mantle is only 1,000 or less, and in order to get a power of about 1,250 candles you must burn very nearly a pint and a quarter. It is almost exactly that you get 1,000 candles to a pint. The result is that where the consumptions are less, as small as they are in practice apparently at most of these stations, they are not burning these burners at full power.

and increased efficiency obtained by,

2827. So that in practice, according to your experiments, the real advantage arises in the increase of light?—In the increase of light, only if you are comparing them with a four-wick burner. In a six-wick burner you save half the cost of oil, and in an eight-wick burner you save two-thirds the cost of the oil.

2828. Will you tell us now what improvements have been made in fog-signals?—Well, a great deal of time and care has been spent in experimenting with fog-signalling apparatus, and a large amount of information has been gained which has been utilised in the design of new apparatus. The Commissioners have formed an adverse opinion against the employment of more than one note in any signal as they have proved that it is impossible to rely on both the high and low notes being heard at equal distances in all kinds of thick weather. Sometimes the high note will carry further and sometimes the low note will carry further with the same signal.

Fog-signals:

Disadvantage of double note.

2829. Is that view concurred in by the other Lighthouse Authorities?—Not entirely. I fancy that Trinity House agree with it and the Scotch do not; but I am not sure about that. One of our best experiments on that point is gained from a Scotch signal, in which we can frequently hear their low note, and we have, I believe, twice or three times in two or three years heard the high note.

2830. It is the low note that carries the best?—As a rule, but on two or three occasions the high note has carried and the low note has not.

2831. (*Admiral Henderson.*) Where do you hear those?—We hear the Killantringan Signal at Mew Island, and at Larne. At Larne, they have never heard anything but the low note, I fancy, but at Mew Island they have heard the high note occasionally and not the low note. It is about 25 miles.

Improvement of, resulting from recent experiments.

2832. (*Chairman.*) I suppose you were present at the experiments carried out by Trinity House at St. Catherine's Point with fog-signals?—Yes, I was. We have carried out systematic tests to ascertain the most efficient area and shape of siren ports in different sizes of instruments and the best methods of efficiently distributing the sound over sectors of different widths, the best method of rotating the drums, the most efficient form and size of trumpet, etc., etc., and have kept ourselves informed of the various improvements made by other workers. These experiments have led to various valuable improvements in the instruments. but it cannot be suggested that anything approaching to full knowledge of the subject or perfection in the instruments has yet been attained. We have also considerably improved the efficiency of our automatic whistling buoys, and are experimenting with what we hope will prove to be a much more efficient form of automatic bell-buoy. We have now obtained and are about to test the value of the addition of materials to our explosive signals, which will give a powerful flash at each discharge.

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Great attention has been paid to the speedy starting of fog-signals immediately on the approach of fog or mist which obscures the view within three miles of the signal station, and all our signals are now efficient in this respect with the exception of Poer Head, which will be altered during the coming year. We have 14 explosive or gun-signal stations and 11 sirens:—

Advantage of explosive,

2833. You appear to have a larger proportionate number of explosive fog-signals than the other Lighthouse Authorities?—Yes, much larger.

2834. Do you believe in them?—Very much. Bull Rock is a case in point where we changed from an explosive to a siren, with the view to economy, and also because, the Fastnet being near—it was also an explosive—they thought it would be more distinctive, but there is no question about it that you cannot rely on hearing the siren to the same extent that you used to be able to rely on the explosive signal. The "Ierne," the boat which attends on the rock stations there, noticed the difference very much. She is the only boat which is really constantly dodging round the rocks there, and she says in the old days she used to almost count on hearing the explosive at quite a considerable distance, and nowadays it is always a toss-up whether she will hear the siren or not until she gets quite close up.

2835. Do you attribute the difference of opinion which appears to prevail on this subject of explosive fog-signals to differences in the coastline in the different parts of the United Kingdom?—No, Sir, I do not. I think one reason of the difference of opinion is this—that the explosive signal, of course, is very expensive in maintenance, exceedingly expensive, and for that reason the great majority of the explosive fog signals have very long intervals—ten minutes, and five minutes, and so on—between the shots, while with sirens you can get them at quite short intervals. The sirens are practically at never more than two-minute intervals, and I think one of the principal reasons why the siren is the more popular signal in a great many places is on account of the not having to wait. You see, to make quite sure of a signal being the one you want, you may have to wait half-an-hour with an explosive fog-signal; with a siren you can do it in a few minutes.

2836. But, notwithstanding that drawback, the opinion of the Commissioners is in favour of maintaining this large number of explosive fog-signals?—I think so; I do not think they would have any idea at all of changing our existing explosive fog-signals to sirens.

2837. And that is your own view, too?—To a certain extent, but I think the Commissioners and myself both consider that every individual case ought to be considered on its merits. There are cases where a siren is decidedly better than an explosive, on account of its being able to be much more frequent. For instance, at the entrance to a harbour, a place where a ship is coming in, getting into a dangerous position, and where it would be unsafe for her to stop for any length of time to listen, there it is of prime importance that the signal should be at short intervals, and therefore in a case of that sort a siren has an enormous advantage over the explosive fog-signal, if cost of maintenance is to be taken into account; but if cost of maintenance is not to be taken into account, if you are prepared to spend thousands of pounds on your fog-signals instead of hundreds, then I have no hesitation in saying that the explosive fog-signal is the best.

2838. (*Sir Frank Adam.*) In all circumstances?—I think so. I have never yet come across any circumstances in which I have known the siren to be more reliable than the explosive fog-signal, and I have come across many instances in which I have found the explosive fog-signal to be more reliable than the siren.

2839. (*Admiral Henderson.*) The increasing speed of ships would affect the question?—Oh, yes, very much, but in order to get the explosive fog-signal really equal to the siren for all cases, you would have to explode every half-minute, and if you are going to explode every half-minute the cost is going to be enormous.

Areas of silence of,

2840. (*Chairman.*) Have you found the silent areas to which sirens seem liable prove in experience a serious drawback?—Yes. My own impression is that all signals, not only sirens, are subject to silent areas; I do not think it is confined to the siren at all.

2841. Even explosive signals?—I think even explosive signals. I do not think that anything will ever get over silent areas except increase of power, and the only means of increasing power that we know of at present is to adopt diaphones instead of sirens, and that is a thing which has not yet been sufficiently tested in this country. There are going to be experiments carried out in the spring by Trinity House, I understand.

2842. (*Admiral Henderson.*) Have you any idea what is the number of hours of fog you get on the Irish coast in the year?—It varies very largely. This year the number of hours of fog has been so great that our stations have been constantly running out of ammunition, and the makers of the ammunition ran short of their stock, and it was just by a pure accident that one station happened to have, I think, I am not sure, something like two and a half years' supply, owing to the amount of fog in the two previous years having fallen far below the average, and if it had not been for that our fog-signals would have been stopped.

2843. That is explosive?—That is explosive.

2844. That is a danger of the explosive?—Well, I do not think that danger will occur again; we have been warned once. We have 14 explosive or gun signal stations, and 11 sirens.

List of si and expl sive, in I land,

1.	Fastnet - - -	Five minute explosive.
2.	Kinsale - - -	Double shot six minute explosive.
3.	Daunt's Rock - -	Alternate ten and five minute gun.
4.	Roche's Point -	Thirty seconds siren.
5.	Poer Head - -	One minute siren.
6.	Hook Tower - -	Double shot seven and-a-half minute explosive.
7.	Conningbeg Lightship.	Double blast two minute siren.
8.	Tuskar - - -	Five minute explosive.
9.	Codling Lightvessel.	Triple blast two minute siren.
10.	Kish Lightvessel -	Double shot five minute guns.
11.	Howth Bailey -	One minute siren.
12.	Haulbowline, Carlingford.	Ten minute explosive.
13	St. John's Point -	Double blast one minute siren. We are going to improve the siren this year; it has never been a satisfactory one; it is one of the earliest.
14.	South Rock Lightvessel - - -	Three minute explosive.
15.	Skulmartin - -	Double shot ten minute explosive.
16.	Mew Island - -	Double blast two minute siren, high and low note.
17.	Blackhead - -	Five minute explosive.
18.	Rathlin Island -	Eight minute gun.
19.	Inishowen - -	Double blast one minute siren, high and low note.
20.	Inishtrahull - -	Double blast two minute siren.
21.	Tory Island - -	One minute siren.
22.	Loophead - -	Ten minute explosive.
23.	Skelligs - - -	Double shot ten minute explosive proposed for next year.
24.	Bull Rock - -	Double blast two minute siren.
25.	Mizen Head - -	Double shot seven and-a-half minute explosive in hands.

2845. (*Chairman.*) Have you tried reed signals?—Yes. We use manual reed signals—at least, we are putting them on now; we are copying the Trinity House in that respect—on all our lightships in place of gongs.

2846. You only employ reed signals where very small power is required?—That is all.

2847. They do not compare with sirens?—They do not compare with sirens at all. I do not think it is possible to make a reed as powerful as it is possible to make a siren for the same expenditure of energy. I think that a reed is better than the siren for quite small powers, but there is a limit to the amount of power that it is worth while expending on a reed at all.

List of bells and horns in Ireland.

We have, of second-class fog-signals, four bells and five reed horns:—

1.	Ballycottin - - -	Twelve-second bell.
2.	Barrels lightvessel -	Hand reed horn.
3.	Lucifer lightvessel -	Hand reed horn.
4.	Blackwater lightvessel -	Hand reed horn.
5.	South Arklow - -	Hand reed horn.
6.	North Arklow - -	Hand reed horn.
7.	Kingstown - - -	Six-second bell.
8.	Dundalk - - -	Ten-second bell.
9.	Barr Point - -	Ten-second bell.

both Kingstown and Barr Point being rung from the lighthouse lantern by electricity. In the case of Barr Point the bell is more than a mile away from the lighthouse.

Buoys: Whistling and bell,

2848. Have you anything else that you would like to tell us on the subject of lights or fog-signals?—Well, we have a number of automatic sound signals on buoys:—

1.	Pollock Rock - -	Whistling buoy.
2.	North Shear - - -	Whistling buoy.
3.	South Burford - -	Bell buoy.
4.	North Burford - -	Whistling buoy.
5	Carlingford Lough -	Whistling buoy.
6.	Hellyhunter - - -	Bell buoy.
7.	Hunter Rock -	Bell buoy.
8.	Highland Rock - -	Whistling buoy.
9.	Lough Foyle - -	Whistling buoy.
10.	Limeburner - - -	Whistling buoy.

A whistling buoy is proposed for South Shear.

2849. Do you find the whistling buoys satisfactory?—Very. A whistling buoy is not a signal which a ship can expect to pick up when she is running full speed. If she expects it she will be disappointed. But if she wants to know her position, and knows she is in the neighbourhood of a whistling buoy, and will stop to listen for it, it is exceedingly useful. The whistling buoy on the North Burford I am frequently very much annoyed by at night, and I live more than 12 miles from it. The Commissioners are constantly receiving deputations from all the country round telling them that it is a most awful nuisance. That is practically all I have to say about that, except what I would say under the heading of buoys on the subject of lighted buoys.

Maintenance and repair of,

2850. Yes. Will you proceed to that, then, please?—The majority of the buoys on the coast are of old patterns, but of late years the Commissioners have been pursuing the policy of replacing a number of them every year with new buoys of improved design. Two buoys are kept for every station, one afloat and one on shore, the latter being kept in readiness to replace the one on the station at a moment's notice in the event of its being damaged or breaking adrift. If no accident occurs, each buoy remains on its station for 12 months, when it is replaced by its duplicate, and brought ashore to be repaired, cleaned, and painted. The North, East, and South Coast duplicate buoys are kept in depôts at Larne, Kingstown, and Roche's Point, but the West Coast duplicates are kept in the hands of local buoy-carers, as close as possible to their respective stations, in order to avoid the necessity of sending a steamer a long distance to replace a buoy which suffers from collision or breaks adrift; the duplicate, being close to its station, can be placed at small expense by a local boat. These West Coast buoys, however, are liable to be maintained in less good condition than those at the depôts, because of the difficulty and expense of sending to out-of-the-way places to inspect the work of cleaning, painting, etc., and because there are no proper appliances to handle them, and they have to be brought to Kingstown for repairs. In the majority of cases, a buoy, after it has been painted, has to be rolled over rough ground, or down a shingly beach, in order to get it into the water, with the result that it has a way of arriving in the water with most of its paint off. But we are so short of ships—we have only got two ships to do the whole work of the coast and the headquarters of those ships are necessarily at Kingstown—that it is practically an unavoidable thing that they should be kept in these local places, where they cannot be really kept up anything like so well as those on the East, North, or South Coast are kept up.

2851. Is it your opinion that it would, on the whole, conduce to the economy of the service to have an additional ship?—Well, that is a case I have never really gone into in detail. I think it is quite a possibility, but I would not like at all to express an opinion on it. I think it is very doubtful.

2852. The substitution of a new and improved buoy for an old counts as a new work?—No.

2853. It does not count as a new work?—No.

2854. Never?—Never. In fact, that does not even come under the head of these special repairs.

2855. Under what head does that come?—Under the heading in our Abstract C—the upkeep of buoys and beacons. We put down a sum of about £500 each year for the replacing of old obsolete buoys by new ones.

Cost of,

2856. (*Admiral Henderson.*) What does a buoy cost?—It depends on the size, and it also depends tremendously on the market. That is work we always do by contract—it is much the cheapest way of doing it. The prices we have had to pay for first-class buoys has varied from £100 to £185, for identically the same pattern buoy, within the course of two or three years. Our third-class buoys have varied from about £50 to £85, and our second-class buoys cost about £100. We have obtained very few of these of the new pattern.

Gas used for lighted.

2857. (*Chairman.*) Are your lighted buoys lighted with compressed gas?—Yes; the lighted and sounding buoys have been enumerated under the headings of unwatched lights and automatic fog-signals. All the lighted gas-buoy bodies are welded throughout, in order to avoid the risk of leakage, which is unavoidable with rivetted joints. They are all of the same pattern, with a large central tube to which can be attached a tail-tube, which enables them to be used as either whistling or bell buoys as desired, and renders them much steadier supports for a light than the ordinary patterns. The whistling buoys have proved most satisfactory, and more efficient than the Courtenay type, owing to the fact that the diaphragm is adjustable. With the old Courtenay buoy the diaphragm was at a fixed height, and that buoy was only really efficient in a certain depth of water. As the water gets deeper the weight of the mooring chain is greater, and therefore the buoy sinks deeper. The Commissioners are now experimenting with a new form of automatic bell-striking machine, actuated by a float in the centre tube, which promises to give very much better results than the usual forms with freely suspended clappers or rolling ball strikers. The top marks are of conical, can, or spherical shape, built up of timber battens on a light angle-iron framework, and the battens are radiating, in order to give free exit to the sound from bell or whistle. The buoys are charged to a pressure of 90 lb., and require to be recharged once in three months. The power of the light is about 90 candles. That is the highest power, I think, on any ordinary buoys—not counting some of the extra big French buoys, which have higher powers.

Contemplated improvement of,

Recharging of,

2858. Do you produce the gas at your own gas stations?—Yes. Owing to the fact that the Commissioners only have two steamers to do all the ordinary work of the coast, it would be impossible to ensure the prompt recharging of any buoy which might lose its gas owing to an accident if it was necessary to have the work done by one of these steamers. Consequently they have provided barges fitted with storeholders, which lie ready charged at Kingstown, Larne, and Lough Foyle, which can be towed out to the buoys by any available tug in an emergency—an arrangement which has been found to work well. When the Commissioners proceeded to purchase their first gas-buoys and storeholders, they found that the welded buoys were the monopoly of a German firm, and the prices very high; but, after a considerable amount of trouble, they succeeded in persuading several English firms to send in tenders, and eventually accepted that of Mr. John Thompson, of Wolverhampton, at prices far below those of the German firm. Subsequently the Elder Brethren and the Northern Lights Board have followed their lead, and obtained buoys from Mr. Thompson. The gas is made and compressed into the barges at Larne and Howth Bailey, the gasworks employed for the lighthouse at the latter station having been adapted for this purpose. The Hellyhunter bell-buoy, which is not lighted, is of the usual Trinity House pattern, with freely suspended clappers. The Pollock Rock, South Shear, and Carlingford whistling buoys, which are not lighted, are of the Courtenay type. The Limeburner Rock buoy is of the same form as the gas

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buoys, and its tail-tube and top mark are interchangeable with those of the gas-buoys; but the body is built of much lighter plates, with rivetted joints, and is of less than half the cost. It is now proposed to place a similar buoy in the South Shear, fitted with portable cylinders charged with dissolved acetylene, and a light of 200-candle power, which will be considerably more economical than the oil gas buoys, both in first cost and maintenance, while the power of the light will be much greater, and it can be charged by means of a rowing-boat, without the assistance of barge or steamer.

2859. (*Mr. Ennis.*) Is that a buoy that we had evidence about before, that the Trinity House proposed to lend you?—Not that buoy. The Trinity House have objected to our placing this buoy, and they have refused to sanction our placing this buoy until we have actually ourselves had it for a certain length of time on a station. We are going to place this buoy alongside the South Burford buoy, and during the time that the experiment is going on the Trinity House are lending us a buoy.

Number of, in Ireland.

2860. Because Mr. Matthews told us they were lending you a gas-buoy for Rosslare, which, of course, is South Shear?—They are lending us an oil-buoy. We have 7 gas-buoys, 1 unlighted bell-buoy, and 4 unlighted whistling buoys. There are 18 first-class conical buoys—5 of the new pattern, 13 of old pattern. There are 22 first-class can-buoys—8 of the new pattern and 14 of old patterns. There is 1 first-class spherical buoy of new pattern. There are 13 second-class conical buoys—1 of the new pattern and 12 of old patterns. There are 12 second-class can-buoys—1 of the new pattern and 11 of old patterns. There are 5 second-class spherical buoys—2 of new pattern and 3 of old patterns. There are 18 third-class conical buoys—3 of new pattern and 15 of old patterns. There are 8 third-class can buoys—3 of new pattern and 5 of old patterns. It is proposed to replace four of the above buoys, one second-class and three third-class, with new spherical buoys next year, in order to conform more accurately with the uniform system of buoyage. There are duplicates kept for all the above 109 buoys. Twenty-two wreck buoys are held in readiness to be placed when required, and five similar buoys as marks for lightship moorings in places where the lightships are so far from the land that they cannot rely on getting bearings for refixing them—making a total of 245 buoys, including gas buoys, of which 118 are afloat. The new pattern buoys of first class are 10ft. in diameter, the second class 8ft. in diameter, and the third class 6ft. diameter; the old patterns are of various sizes. All small repairs are carried out by the Commissioners' staff of workmen; but tenders are obtained for heavy repairs, and the lowest from a reliable firm accepted unless the work can be done more cheaply by the Commissioners' men, which is sometimes the case. The annual cost of cleaning and painting the buoys, preparing them for sea, and delivering them out to the steamers, varies from about £1 10s. to £7 each; and the total cost, including repairs and replacing worn moorings, etc., amounted to £1,145 last year—an average of £9 14s. per buoy in use on its station (including wreck buoys). This does not include the cost of gas, etc., for lighting the buoys, nor steamers' expenses in placing them on their stations, etc.

Cost of maintenance of,

Experiments

2861. (*Chairman.*) Well, now, will you please tell us approximately how much the Irish Lights Commissioners spend every year on experiments?—Well, the great bulk of the experiments cost nothing; I mean the great bulk of the experiments are simply carried out by me and my assistant and the foreman lamp-fitter. We are all on the permanent staff, and no charge is made for them. The great bulk of our experimental work is on existing apparatus, and just making small improvements thereto. For instance, when we get a new apparatus we set up at least one panel, or generally more, at Kingstown, and make very careful photometric tests of it, dividing up the lenses into small pieces, and measuring them at short distances, and adding the lot together to get the total; and then, as a check on that, we make a single measurement at a long distance. In addition to that, when the lenses are in the contractors' hands, before we take them over from them, we make a regular analysis of the light from every element. We find out what the exact divergence of the light is, and the exact direction it is thrown in. There is room for considerable improvement in the actual manufacture of photometric apparatus. So far as the design of dioptric apparatus is concerned, it has pretty nearly reached finality. I think any alterations which are made now are simply for special cases, but, so far as the actual execution of the work is concerned, they are a rough job.

2862. Your experiments on dioptric apparatus are confined to experiments on apparatus supplied to you by contractors?—Yes, and when the next apparatus is in hand we try to get the contractors to make improvements on them.

2863. You do not attempt systematic experiments on a large scale, such as those conducted by Trinity House at St. Catherine's?—No, it is almost impossible for us to do so. We occasionally do, but not on a large scale.

Difficulty obtaining funds for

2864. What sort of experiments?—We occasionally do on a small scale, but when we ask the Board of Trade to sanction money for experiments, they expect us to tell them the results we are going to gain from the experiments, which is not exactly an easy thing to do.

2865. Have you often made application?—Oh, yes, we have frequently. For instance, we have obtained money for experiments with this bell-buoy machine, which we hope to substitute for the old bell-buoys. Before we did that we got an original experimental machine. Owing to the difficulty we always have in obtaining money for experiments, we went to Messrs. Chance and asked them to make an experimental machine for us for nothing, and we said that if they turned out a success we would allow them to have patent rights for it, except so far as we were concerned. We would retain our power to obtain them by tender from anybody, but for anybody else they would have control of the machine; and they agreed to that, and they made an experimental machine for us; so when we tried that we found it was most satisfactory in harbour. We could not get a day still enough to stop it from being a very great nuisance, but as soon as we put it out into a seaway it knocked itself to pieces. It was really too energetic, so we, having got that amount to go on, went to the Board of Trade, and they then sanctioned money, after laying the matter before the Elder Brethren, to enable us to go on with those experiments, as we had proved that we had got a good thing, and that we had simply to find out how we have to regulate it, and they have sanctioned money for a new machine, which is just at the present moment being placed on a station.

2866. The Board of Trade has been reluctant to allow money for experiments at large?—Very reluctant. We used always to have a sum of £100 inserted in the estimates for experiments. When we attempted to spend this the Board of Trade objected. They wanted to have full particulars of all experiments sent to them before we started. Well, it is almost impossible to give them, I may say. Then they sanctioned expenditure for experiments on dioptric apparatus on lightships. That experiment is in hand now. They have also sanctioned small sums on several occasions for siren experiments, and we have done a considerable amount of further experimental work on sirens in this way. When we first start on a new job, before we complete our designs for it, we get two or three parts which we are not sure about which we think we could improve, and experiment with them, and put the cost into the cost of this particular station. For instance, Inishtrahull. When we were starting this job we got three or four different patterns of revolving drums for the siren, in order to test thoroughly the effect of altering the shape of the port. We put these instruments on the spare lightship at Kingstown, put them in place of the ordinary siren there, and carried out a long series of tests, and got a lot of valuable information as to the shape of ports.

Facilities given to inventors

2867. Do you ever give inventors facilities for trying experiments at their own cost?—Yes, I am always begging them to do it. At the present moment we are putting up these unwatched acetylene lights at Sligo, and two inventors are sending me apparatus at their own cost to test, with the view to having them used there. Messrs. Thompson, the people whom we got to make our buoys for us, found that they were very much handicapped in competing with Messrs. Pintsch for foreign contracts—and indeed for some of

the local Harbour Authorities in England—because nearly all the people require them to tender for a complete installation, and there was only one form of flasher on the market, and that is Pintsch's patent, and when they went to purchase Pintsch's patent to put it into their contract Pintsch charged them as much for the flasher as the whole of the job was worth; so they asked me if I could help them at all in that way, and I said that if they would work out competitive lamps I would be very glad to help them in every way I could. I gave them designs, and they have spent a considerable sum of money in experimenting on them. As to whether they will bring it to anything or not I do not know.

2868. Do you think that more money could be usefully spent by your Board in experiments?—Yes, sir, I do. I think it would be a very useful thing indeed if our Board were allowed to spend up to a certain fixed sum annually without obtaining special sanction—reporting any success afterwards—but without previous question.

2869. A small sum in each year for the carrying out of experiments?—A small sum in each year for the carrying out of experiments. I think it would be a very useful thing indeed.

2870. (*Admiral Henderson.*) Is there any conjoint action between the Trinity House, the Scotch Board, and yourselves as to experiments?—Occasionally, but only when we are going in for a big thing. It is very hard to manage any conjoint action in the small every-day experiments, as I call them. We are practically always experimenting on something. We have been experimenting, for instance, for the last three months now with dissolved acetylene at Kingstown. That has been entirely at the cost of the inventor, who has handed us over the apparatus and given us every facility.

2871. But if there is a very big experiment required you represent it to the Board of Trade?—Yes. Those big experiments are practically always carried out by the Trinity House, and the Scotch and Irish Boards joined with them.

2872. (*Chairman.*) Do you communicate the results of your experiments to the other Lighthouse Authorities?—No, not as a rule, unless I am asked. If I am asked I reply.

2873. Do they communicate to you any results of any experiments carried on by them?—Only the big experiments which are carried out, of which there is a regular printed report. For instance, there were the fog-signal experiments at St. Catherine's three years ago.

2874. But in point of fact are not the Engineers' departments of the different Authorities in constant communication with each other?—They are; but the experimental work we do is in such a small way, most of it, that it would be a very difficult thing to keep a constant interchange of experimental work between one another. I may say a great deal of it we do not even make reports on. We simply adopt that improvement in a particular instrument.

2875. You think the co-operation that does exist is sufficient for practical purposes?—I think it is. Whenever we obtain money from the Board of Trade for experiments they practically always inform the Trinity House of the fact, and Trinity House nearly always write and ask us for the results, which we send them. Practically speaking, the Board of Trade seldom, if ever, sanction any expenditure by us for experiments, without asking the Trinity House whether they approve of our getting the money first of all or not.

2876. Are you in touch with any Lighthouse Authority abroad?—Well, not really in touch. We have occasionally written to the Canadian people for information about some of their work, principally in connection with buoys, and whenever we do they are always very civil in giving us any information we ask for. And, of course, the French people publish from time to time complete records of all their works, which they send round to all Lighthouse Authorities without being asked for it.

2877. And the German Authorities?—The German Authorities we never hear from at all.

2878. (*Admiral Henderson.*) Do you think there might be improvement in the management of experiments, particularly in minor matters. I may say the least trifle, if it is of advantage to you, is of advantage to the other Boards?—It is, except in this, that, as a matter of fact, the apparatus used by the three Boards is not the same. We have all our own fads, and there has always been, I think, a certain amount of emulation between the three Boards to try to get ahead of one another, which, I think, on the whole, has been rather a good thing. If one starts a new thing the others have immediately tackled it and tried to go one better, and I think in the end it results in efficiency.

2879. (*Colonel Herbert.*) While we are on this subject might I ask a question. Do you not think there might be a danger of a duplication of experiments unless there was the control which is now exercised by the Board of Trade?—Oh, yes, there would.

2880. You might be experimenting on things which had already been thoroughly experimented upon by some other authority?—Well, the only answer to that I have is this, that if it had been a thorough experiment, then it would have been an experiment which would have been communicated to us.

2881. Does not that argue in favour of a more thorough and constant communication between the Engineers?—Oh, I would say the more thorough and constant the communication between the three Engineers on that matter the better, most decidedly, but it would be rather difficult to say that every little experiment that we carried out should be immediately communicated, because, of course, I have been experimenting for five years at least with one very small point in connection with incandescent burners, and which I have not yet got any real result from at all. If I had communicated every little step I took only as I took it to the other Boards I should have spent quite a large amount of time writing letters which would have produced no result.

2882. (*Chairman.*) Something must be left to your discretion?—Yes.

2883. (*Sir Frank Adam.*) But if you had been successful you would have communicated at once?—If I had got any tangible result. The Commissioners of Irish Lights, when they completed the Fastnet Lighthouse, decided to publish a complete and full account of the building of the Fastnet Lighthouse

2884. (*Chairman.*) Has that been done?—It is in hand; it is illustrated with copies of the working drawings, and a full description of the work from start to finish.

2885. Was that lighthouse designed by you?—The actual stone structure was designed by my predecessor, but all the fittings and the lighting apparatus and lantern, etc., were designed by me. He resigned just after the erection of the tower had been commenced.

2886. Passing to another subject, will you tell us about the repairing shops at Kingstown; what work do they carry out?—Well, the repairing shops at Kingstown are very, very small. We have a carpenter's shop, in which we employ one permanent foreman carpenter and nearly always there is one other journeyman carpenter there. Then we have a lamp-fitter's shop, in which there is the foreman lamp-fitter and the assistant lamp-fitter; and now that we are making all our own incandescent burners, we have got four daily lamp-fitters there. Well, then, there is the fitting-shop. We have six fitters, and as a general rule there are, I suppose, about two or three of them at Kingstown and the other three or four are out on the coast actually effecting repairs. Then there is a blacksmith's shop, in which there is a blacksmith and an assistant, and we generally have a second assistant there as a day man. *Kingston Workshops: Description of,*

2887. The whole thing is on a very small scale?—A very small scale.

2888. Have you an engine plant there?—We have a small 5-horse-power engine, which drives a lathe, a drill, and a saw bench. At present we are making all our incandescent burners. We repair all our oil-burners and gas-burners in the shop. We do all our repairs to buoys, all the ordinary small repairs, and for big repairs, such as buoys which have been in collision and require half-a-dozen new plates or something of that sort, we get prices from outside contractors; but as a general rule they put on so much on every tender for carriage, etc., that in the majority of cases we do the work ourselves. We employ labourers then to cut the plates out; then we have a contract rate with some firm to supply us with boiler makers at so much a day, and we get them down then just to do the actual

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replacing of the plates and then our own men do the rivetting up.

2889. What are your duties in connection with the ordering of materials and stores?—Well, of course, I order all materials required for new works and repairs, and in the matter of stores I order all the paints and oils for the lighthouses, not for the light-ships or steamers, and I order all the ladders, and I order all the gas stores; that is to say, the retorts, bricks, fireclay, etc., required for renewal of gas benches, and the tools, the rakes, and barrels, etc., required for use in the gas works.

Engineer's duties:

2890. And do you test all the materials ordered by you which require testing?—Yes, and I test, in addition, all the oil and wicks they use in the lanterns. Though the oils and wicks are ordered by the Inspector's department, no oil is issued to a station until I have certified that it is up to the mark. We test every consignment.

2891. And as regards checking accounts, is that part of your duty?—One of the clerks in the cashier's department is detailed as check clerk. He is entrusted with the checking of the accounts, both for my department and for the Inspector's department. When the accounts come in they go to him, and he has to go through them and check them against the orders, and if there is anything doubtful he brings them to me and gets me to clear it up. When he has got them all done, he brings in the accounts for the week to me and calls my special attention to things which he thinks I ought to notice. I just go through them cursorily only.

2892. Are you responsible or is he responsible?—He is responsible to me; I am responsible to the Board.

2893. But he is responsible to you?—He is. I sign the accounts, then it goes on from me to the Secretary, who has to look through them, and he is responsible also.

2894. For all the accounts passing through your department both you and the Secretary are jointly responsible?—Yes, and I have this check clerk, who is delegated from the Accountant's department for the purpose, to do the actual checking of the accounts. It takes him all his time, so naturally I could not do it.

Engineer's Department:

2895. (*Colonel Herbert.*) You stated the officers who are employed under you; what subordinate staff have they got under them? For instance, you said you had an assistant, a draughtsman, a clerk of works. Say the draughtsman; I suppose he has got subordinates under him?—Well, no, he has not. As a matter of fact, the permanent draughtsman is kept practically to work connected with the permanent work of the coast, I may say the repair work almost entirely, and the design of new houses. We occasionally give him charge of one or two of the special repairs, but if so he keeps that entirely in his own hands. We have a number of temporary draughtsmen; they vary according to the amount of work in hand from two to four, and one of them is at the disposal of the permanent draughtsman at any time he wants assistance. At the present time one of the temporary draughtsmen is the son of our permanent draughtsman, so I give him free leave to order his son to do anything he wants for him; the other draughtsmen are directly under the assistant engineer, not under the permanent draughtsman.

System of employing temporary draughtsmen.

2896. Has not that temporary employment a tendency to drift into permanent employment?—It depends on what you mean by drift.

2897. It becomes so frequent that it is practically permanent?—Except that they are not entitled to pensions, for one thing, and it remains in the power of the Engineer to get rid of them at once if he wishes. I may say I frequently take on and send off men. When I get hold of a good man I keep him as long as there is work for him, but when I get hold of a man who, I may say, is not much use, as soon as the actual job I take him on for is finished I send him off at once.

2898. Does not that support what I say, that there is a tendency to find work in order to keep men on?—There is no attempt to make work. My difficulty is to get sufficient temporary assistance. As soon as the job is finished I send a man away if there is no other job waiting for him. If I put a draughtsman on to get out the drawings for a contract for a lighthouse, I do not want to change that man on that job if he is a slow man, or anything of that sort; I keep him on till he has finished that job. As soon as he has finished it I get rid of him and try to get another man in his place.

2899. The principle you work on is of having only temporary employment?—That is all; it is all that has ever been allowed to us by the Board of Trade, and I think on the whole it is a good plan, because it gives me much more control over them. A permanent man who is appointed by the Board, with a permanent salary and prospects of a pension—if there comes to be a dispute between him and the Engineer—always has the feeling that he has got an appeal, whereas these temporary men are appointed solely by the Engineer, and they are dismissed by him at any moment, I may say, without question. I practically agree entirely with what Admiral Henderson said. It is just that very thing that I found; that having these temporary men I am able to take on men and send them away as occasion requires; and sometimes I want a man at a higher salary, at other times at a lower salary. I had an interview with the Board of Trade about a couple of years ago, at which I explained the thing thoroughly to them, and since then they have allowed me to have practically a definite sum of money to spend on draughtsmen every six months, instead of specifying a definite number of men; and I may employ sometimes half a dozen at £1 a week, and at other times a couple of men each at £3 3s. a week, according to the work in hand, or whatever will be most satisfactory.

2900. Following on the same idea, to give an example, what would be the course followed on the initiation of a new work?—Well, first of all, as a general rule, in the case of new works, the Board instruct me to report to them on what will be the best method of erecting a light, say, or a fog-signal, as the case may be. In the first instance I do not go down there, but from my own personal knowledge of the place and from the assistance we get from maps and so on, I give them a preliminary report; showing what I think will be the most suitable scheme, or proposing two or three alternative schemes, which I detail, and I give them along with that a rough preliminary estimate of the probable expenditure. Well then that report of mine is sent to the Inspector, and he reports on it to the Board, and those two reports together are considered by the Inspecting Committee. It very frequently happens that the Inspector and I do not absolutely agree on all details, and very likely the Inspecting Committee will not agree with either of us. After the Inspecting Committee have first considered it they generally return the matter to us for a further report, considering the remarks they have made to us, and sometimes certain written instructions which they give us. I then prepare a revised scheme with a revised estimate, and the Inspector again makes his remarks on that, and that as a general rule is practically what the Inspecting Committee have decided upon. They will probably adopt that report and send it to the Board. The Board in nine cases out of ten adopt the Inspecting Committee's recommendations, and give orders that the sanction of the Trinity House is to be obtained. Then the Secretary writes to the Trinity House and asks their sanction to the placing of a light of such and such a character to be maintained by such and such an apparatus, and up to about four years ago I think the Trinity House never asked us to give them any details as to the apparatus or cost. We simply gave them the broad principles, the principal thing being the character of the light. But about four years ago, I think it was, they started asking us to give them the estimate of cost, and to describe in detail the apparatus to be used, and they have frequently refused to sanction apparatus, because they did not approve of the method that we were adopting to show it. Last year, for instance, we proposed a biform apparatus for St. John's Point, County Down, St. John's Point being a place where there had been a great demand for an improved light. The present light is a powerful red light, but it is not powerful enough owing to the fact that the great bulk of the traffic passes the light at a distance of six miles, and the light is very badly wanted by the traffic which passes there six miles off. Owing to that fact my Commissioners thought it was most important we should use as powerful a light as practicable, and they therefore put forward a biform apparatus. The Trinity House refused point-blank to sanction a biform apparatus at St. John's Point, because they said St. John's Point was

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not as important a situation as the light outside Holyhead, Skelly Head, and they had just put a monoform light on Skerries, and therefore they would not sanction our placing a biform apparatus on St. John's Point. We appealed against that to the Board of Trade, and the Advisory Committee backed us up very strongly, and the Board of Trade sanctioned the biform light against the wishes of the Trinity House.

2901. What you mean is that there is a tendency on the part of the Trinity House to exercise its authority as a controlling power?—Yes. It is only quite within recent years that they have taken to interfering with us at all as to the method of exhibiting lights.

2902. What I was more upon, when I asked you the question, was, assuming that all this preliminary has been got through, and that you are going to set up a new work, then what course does it take?—As soon as the Trinity House has sanctioned it I then send down and survey the place, and prepare an estimate which will be something more like what the actual cost will be. The first estimate is simply an approximate estimate, but before sending on an estimate to the Board of Trade we in most cases send down and make a survey, and get a more accurate estimate made, which we send to the Board of Trade, and get their sanction to the expenditure. Then when we are starting the work, if it is a question of improving a light on an existing lighthouse, the first thing to be done is to get out drawings and designs for the lantern and apparatus, and we get tenders in for them. So far as the apparatus is concerned we have a five-year schedule contract with Messrs. Chance to supply them, but we get tenders for the other parts of it, and we recommend the lowest tender from a firm that we think is really competent to give us good work, and that is sent to the Board of Trade for their sanction to the acceptance of the tender.

2903. Every step has to be referred back to the Board of Trade?—Practically we cannot accept any tenders for any large amount. We accept what we call offers for quite a small thing, a matter of £5 or £6. We do not go to the Board of Trade for those. But for anything running into over £20 at any rate, we go to the Board of Trade to sanction the acceptance of the tender.

2904. But broadly speaking the new work would consist—either it might not be of all those different elements, or it might be buildings and dwellings, or lighting apparatus, or machinery in connection with lighting apparatus?—For buildings and dwellings and that sort of thing we prepare drawings and specifications; get in tenders and go through them carefully; and if they are reasonable we recommend one to the Board of Trade. Sometimes—for instance the shore dwellings for Eagle Island, if I remember right, the lowest tender we got was £6,500.

2905. (*Chairman.*) For how many cottages do you say?—For four houses. We reported that we could do the work for £4,000, and so the Board of Trade sanctioned our doing that with our men, and we completed that work for about £3,950.

2906. (*Col. Herbert.*) Yes, but my point is this; there is considerable diversity between those different elements?—Yes.

2907. But you are personally responsible for each of them, whatever they are?—Absolutely, whatever they are; for everything. For instance, at the present moment we are putting up a new fog-signal station at Mizen Head. The first estimate I sent in for Mizen Head happened to fall rather wide of the mark. I had never been at Mizen Head in my life, and the first approximate estimate we sent in was quite a small one. But then I asked, before I sent in the final estimate to the Board of Trade to have £100 sanctioned to carry out a proper survey of the Head, because I did not really know what the Head was like, and I knew it was quite possible it was going to be a very difficult place. I went down myself with the surveyor to start the work and show him exactly what to do. When we came to Mizen Head I found there was a gulley between me and Mizen Head; we could not get on the Head at all. As a matter of fact he had to wait there over a week to get on to the Head to begin his survey. The Mizen Head signal station has got to be on what is practically an island, and the cost of getting there is as great as my original estimate for the whole station was. That man made a complete survey of the headland and the island, and ran a line for a road to lead up to it.

2908. (*Chairman.*) A conjectural estimate of that kind is of very little use?—We have so very many schemes which never come to anything. If I were to go down and get surveys and true estimates for them in the first instance I would certainly want a considerably larger staff than I have got, and the cost becomes very considerable. The cost of that Mizen Head survey, for instance, was about £135, I think. Well, to go and embark on a cost of £135 for a survey, when it is still exceedingly doubtful whether it will be decided to spend any money on the place at all——

2909. But would not something much less than a complete survey have sufficed to prevent such a mistake as was made on that occasion?—Well, it would certainly if I had actually gone there, and gone out on to the place. To get down to Mizen Head and back again costs about £8 in travelling expenses. Then, also, it is more than a day's journey to get down there, that is to say to the nearest place where there is a house, and it is more than a day's journey to get back again, and it would take me fully a day to go out and see the place; so that is three days of my time taken up, and about £8 in travelling expenses; and if you tot that all up together it comes to about £17 or £18, and I do not think I could find time to go down to inspect the site of every proposal when it is first put forward in a tentative manner.

2910. (*Colonel Herbert.*) It is not the fact that a scheme is started on such information as that usually; that there is an insufficient inspection of the coast at all times?—I do not think so. We have no possible means of inspecting the portion of the coast where we have got no lighthouses.

Inspection of Seamarks:

2911. But there is the circular inspection of the whole coast, I understand, made every year, which lasts for a considerable time?—Certainly, it takes about three weeks.

By Inspecting Committee.

2912. During such an inspection as that?—During those three weeks they inspect practically every lighthouse on the coast, but if they were to inspect the rest of the coast, where there are no existing lighthouse stations, that inspection would take three months.

2913. It seems to be a question whether the inspection which is actually made of the existing apparatus is very satisfactory, what we should consider—I am speaking from a military point of view—a very efficient inspection; so long as the examination of the rest of the coast is not done at all?—The examination of the rest of the coast is certainly not done at all. In the case of the question of Mizen Head, if the Commissioners had had an idea of placing a signal at Mizen Head in their minds at the time they were going round; and if the weather when they were near there had been suitable for landing on Mizen Head, which is exceeding doubtful, I have no doubt they would have gone on to Mizen Head to look at it; but under ordinary circumstances the great probability is that they could not have landed at the Head, and it would have been necessary for them to land at Crook Haven, and to drive from Crook Haven.

2914. In fact the time would not admit of it?—It would have taken them at least an extra day.

2915. You have mentioned that your proposals are referred to the Inspector?—Yes.

2916. Do you take any part in the work of inspection which is done by the Inspector?—No, none whatever. The inspection that I do is simply this. I go round with the Commissioners in order to be able to answer any questions that may arise. If they see anything at the lighthouse they do not think is as it ought to be, they immediately call my attention to it, and ask for an explanation. It is my duty to keep the whole of the buildings, the whole fabric of the station and all the machinery and everything else in repair, and if the Commissioners find anything out of repair, they ask me immediately for an explanation of it. Well, then, just before the annual inspection the keepers send in a return, on which they make a list of all repairs or improvements which they think necessary on the station, and I take this return with me. I go through them. Of course a great many of them are small things which I decide on my own responsibility. Anything that is not very small I call the attention of the Committee to on the spot, and get them to look into it then and there, and decide whether or not I am to put forward the scheme for doing it. I

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go with the Commissioners generally. If there is anything special to be looked into, I go and look into that, but if not I generally go up into the lantern with whichever Commissioner is examining the apparatus in the lantern.

By Inspector.

2917. We had it in evidence that the Inspector is constantly engaged in the work of inspection all the year round?—Yes.

2918. Therefore he is constantly examining what is practically your work?—Yes.

2919. The work that you have done?—That is so.

2920. You do not personally take any part in that sort of inspection. After the thing has been put up by you, then it is left entirely in his hands; you do not have anything more to do with it?—Oh no; that is not the case.

2921. Until you are called in again?—Until I am called in again; but there is a whole number of returns, for instance, coming from the light-keepers, which give me information as to the consumption of gas, and whenever any little irregularity occurs, or any accident happens, or anything of that sort, they report at once to me, or they report to the Secretary, and the Secretary sends it on to me. But so far as the simple inspection of the work done by the keepers is concerned, that is done entirely by the Inspector, except in so far as incidentally I may find out from returns that the keepers are not keeping the burners up to the mark, and that sort of thing. Then I write to the keepers. For instance, I have found in the returns from gas stations that a keeper is making gas in an uneconomical manner. I immediately write to him on the subject, point out what he is doing wrong, and make him report to me once a week, probably for three months afterwards, to see that he has got the thing in proper order.

Oil:

2922. There is a question or rather a different point I want to put, that is, you stated you have to certify the quality of the oil, and so forth?—Yes.

2923. Does that actually come within the province of a gentleman who is trained as an engineer, as you are?—I think so.

2924. Who has the experience to deal with that; your profession is a very highly technical one?—Exactly.

Method of testing,

2925. But I do not know that that would exactly come in?—I mean to say our oil is very carefully tested. We have a pretty full specification for our oil, and the things which we actually test for in every consignment which comes in, are the candle-power that we obtain from a standard burner, the consumption of oil, the number of grains burned per hour during that test. The test is run for 17 hours. We take the candle-power every hour, and we weigh the burner with the oil in it at the beginning of the test, and at the end of the test to get the consumption. We also take the specific gravity of the oil, and we take the flash-point by the Abel close test. If the oil passes those, if it has got a good colour and a good smell, we accept it. There is one other point which we are very particular about, and that is the action of the oil on the wicks. The actual test is carried out by the foreman lamp-fitter, and he sends up a full report to me upon it, and he sends up to me a small sample of the oil, that I may see the colour of it and smell it, and he also sends up three of the wicks which were actually burned for the 17 hours with the crust on them.

2926. The foreman lamp-fitter is the person who actually carries out the test, but you are held technically responsible?—Yes, he carries it out under my instructions. I teach him how to do it.

Steam vessels: Responsibility for upkeep of,

2927. (*Mr. Ennis.*) As I understand your evidence, the responsibility for the machinery and the fittings of the steam vessels rests primarily with the Secretary with regard to the "Alexandra" and the "Tearaght"?—Yes.

2928. But with the Inspector with regard to the "Ierne"?—Yes.

2929. But then you have a supervision, an inspection?—No, neither of them; all I have to do is to detail a mechanical assistant to go and do the work; that is all. I do not know what he does.

2930. You are not in any way responsible for the efficiency of the work of the mechanical assistant?—No, not in the least. So far as the repairs to the steamers are concerned, it is simply that I lend him to the other department.

2931. And when he passes from your department, the responsibility for his work passes with him to the Secretary and to the Inspector?—I take it that it does. I really do not know whether it passes to them, or to the Board.

2932. Then with regard to the permanent workmen in the Kingstown workshops and elsewhere, are they entitled to superannuation the same as the lighthouse men?—Some are entitled to superannuation, and some are not.

2933. How do you draw the line between the men who are entitled to superannuation and the men who are not?—That is a thing which is beyond me altogether. I never could make it out; that is a matter that has been decided entirely and altogether by the Board of Trade, I think, and on what basis is a thing which I have never been able to discover.

Kingstown Workshops: Supervision of,

2934. With regard to the Kingstown workshops, you exercise a duty of supervision these, but the administration of the work is carried out by the Superintendent?—That is practically it.

2935. You see that everything they turn out is as it ought to be?—So far as the actual working in the workshops is concerned. As a general rule I actually give the orders myself verbally, and I then put them in writing to pass through the Superintendent's hands. There is an order book which travels backwards and forwards daily between the stores at Kingstown and the office, and all orders, except very small matters of detail, have to be entered in that book. I put them in the book and I initial them, and the Secretary initials them too, and the Superintendent puts in anything he wants done by my men at the stores. He puts a note in the book asking me to authorise him to get it done.

2936. You have also told us that you do more works direct than by contract?—I think so.

Lightkeepers' Dwellings:

2937. And that, of course, applies to lightkeepers' dwellings and to building works?—Well, no; the great bulk of building work is done by contract.

2938. You referred to Eagle Island?—Eagle Island is the only actual new building we have done by our own men for some considerable time.

2939. Can you give us any idea as to the size of these cottages that you built at Eagle Point; as to the thickness of the walls, say, for the purpose of comparison with the Scotch?—The thickness of the walls in the lower storeys, if I am not mistaken, is 2 ft., and the upper storey 18 inches.

2940. And can you give us the cost per cubic foot of the cottages; I do not want details of the size of the rooms or anything like that of the cottages, but if you could give us the cost per cubic foot or cubical contents, that is, calculated on half the foundations and half the roof?—Half the roof to the ridge?

2941. Half the roof to the ridge and half the foundations. Assuming you have foundations 4 feet deep you would take 2 feet?—Yes. In our dwellings very frequently the principal cost is the foundations. We have had more than one case in which the foundations have cost nearly as much as the buildings. By foundations I include necessary excavations.

2942. But what was the cause of that; very soft surface or what?—Building on the side of a hill; that sort of thing. Some of our dwellings are built on a considerably steeper slope than 1 to 1. Excavating down on one side and building up foundations on the other side runs into a large sum of money.

2943. I think, if you could, you might give us the material of which the houses are built; whether it is stone excavated on the spot or whether it is brick?—That depends entirely on circumstances. In 9 cases out of 10 or more it is stone excavated on the spot.

2944. In the inaccessible positions in which this class of dwellings usually are, the cartage of heavy material is a very serious item?—A very serious item.

Average cost of,

2945. For purposes of comparison, if you could give us the cost per cubic foot of these cottages it would be of assistance to us?—Do you mean of particular ones or an average?

2946. The average?—Because I think that is a thing I have not actually worked out, but my impression is

the cost per cubic foot of our earlier dwellings is less than our later ones.

(*Chairman.*) Would it not be as well to take one or two typical cases?

2947. (*Mr. Ennis.*) If you could give us the maximum and minimum; we have had that in the case of the others. I am anxious to compare that with the cost of the Scotch dwellings?—And then, with flat roofs, are we to take to the top of the parapet or half way up the parapet?

2948. To the top of the parapet in the case of a flat roof?—From half depth of foundations; that, of course, means the average foundation.

2949. The average foundation?—And the half height of our slate roofs, and in taking the cost per cubic foot there is the cornice, for instance, round the flat roofs; are we to include the cornice or the dimensions of the walls only?

2950. The dimensions of the walls only?—Walls only.

2951. I did not ask that question of the others, but I imagine that is the way?—I think the usual method of measuring cubical contents is to take outside everything; it makes a good deal of difference.

2952. I think it would be sufficient for our purpose; it will not make such a difference. I do not mean to institute a close comparison. I want to see if they compare reasonably with each other?—Quite so.

Engineers' Department: Salaries of,

2953. You have given us the cost of the various salaries in the engineering staff?—Yes.

2954. And excluding the foreman mechanic and the foreman lampfitter, who, I assume, are employed in the Kingstown works?—Yes.

2955. They would be something analogous to the people in the Blackwall works, in the case of the Trinity House; the salaries total cost would be about £1,573?—You are not including the temporary draughtsman?

2956. Yes. You gave us, for him, £183?—I have got down here maximum salaries, I think.

2957. It is for the actual present salaries, I take it. I wish to compare it with the actual expenditure in other places. I make the total £2,023, but there is £450 to come off, and that will be £1,573, I think?—Yes, that is right. You have not the temporary draughtsman down. The temporary draughtsmen would run to about £300.

2958. What is the foreman mechanic?—The foreman mechanic is the man at Kingstown.

2959. Then what is his salary?—£300, and the permanent draughtsman is £200.

2960. The permanent draughtsman is £183?—That is the actual at present.

2961. £300 to be added for temporary draughtsmen; that is, £1,873 would be the total expenditure?—Yes.

Expenditure of Irish Lights Board: on New Works.

2962. You have told us that the average expenditure on new works for 10 years has been about £18,000 and £2,226 for repairs?—The actual average expenditure of the Commissioners on new works during the last ten years has been £24,469, but some proportion of that was spent on steamers and lightship hulls, which I, personally, have nothing to do with, so that the actual expenditure belonging to the engineer's department——

2963. But the total expenditure has been £24,000?—The total average has been £24,469.

2964. (*Chairman.*) That includes steamers?—That includes steamers and hulls of lightships, and the amount for which I am responsible has amounted to an average of £18,770. Of course, that does not include the special repairs.

2965. (*Mr. Ennis.*) Oh, no; £2,466 for special repairs?—£2,466 for special repairs.

2966. Now in that £18,770 in the department controlled by you during that period is included, I take it, expenditure on the Fastnet?—Yes.

2967. The Fastnet has been mainly erected during your term of office, is not that so?—Yes, it has, certainly.

2968. Could you give us the total cost of the Fastnet?—The total cost of the Fastnet is £89,705 14s. 1d.

2969. Have you any idea how much of that £89,000, or £90,000 in round figures, has been expended during these ten years to which you are referring here?—Oh, the whole of it, I think, because that ten years which I am referring to includes the whole of it, because my ten years start from the year in which the Fastnet was begun. My ten years are from 1896 to 1905, and the Fastnet was commenced in 1896.

2970. I take it that the Fastnet Lighthouse is a work of national importance?—I should say so.

2971. I mean, in your opinion, is the Fastnet Lighthouse of more use to the general trade of the nation at large, or to merely the coast of Ireland? If it was not for the passing trade would the necessity for such an expensive light as the Fastnet exist there?—No, I think not. The Fastnet was built there with this powerful light as being the first landfall from America.

2972. That is my own view of it, and therefore what I want to ask you is, in the event of excluding the Fastnet from the calculation altogether, it would reduce your annual expenditure to practically £9,000—we will say £10,000—instead of £18,000?—Well, £10,000 it would.

2973. It would practically reduce it to that. Of course, it would not be fair to exclude the Fastnet altogether, but there has been an exceptional expenditure during those ten years by the Board of Irish Lights, and that £18,000 per annum for these new works would probably be an expenditure that would not be necessary over the period of the next 25 years, say?—It all depends on what is considered necessary, Sir, because, as I remarked before, when I was giving the list of lighthouses the great majority of the lighthouses could, with great advantage from the economical point of view, be altered, and to get the greatest possible saving from the economical point of view they should, I suppose, be all altered straight away, if it is possible to dispense with lightkeepers' services without compensating them, but I do not suppose it is.

2974. But, in any case, would not the total cost of the Fastnet—£90,000 in round figures—exceed the total cost of altering all the lighthouses?—That I could not say offhand.

2975. From the figures you have already given us, I should say, as a rough calculation, it probably would?—No, you have a large number to alter. I cannot say definitely; it is a thing I have not gone into. But, supposing it would really pay to alter all the lighthouses which we have not at present made really modern, it means that there are over 50 to alter, and it would certainly cost, I should think, more than the Fastnet to alter the lot of them.

On Lighting Apparatus.

2976. The average cost of new apparatus, I do not think you have given us, and it is a question I intended to ask you?—It varies enormously.

2977. You gave us converting the Rockabill cost only £110; that is the existing apparatus?—I can give you some of these. Maidens, where we did away with two old catoptric lights, and put in biform apparatus lighted with incandescent oil on one of the lighthouses, and at the same time we put new roofs on the dwellings, and we built landing-places there—there had been no proper landing-places previously made on the rock—and dismantled the old station on the West Rock, and put a new stone roof on the tower, and the total cost of that was about £6,300, I think, and that is about what would be a maximum, I should think.

2978. Well, £4,500 to £5,000 would probably be an average?—Oh, no, it would be a good deal less than that.

2978a. Less than that?—I think so; an average would probably give about £2,000 or £3,000.

2979. Well, then, the total cost of altering all the lighthouses, assuming you could undertake the work *en bloc*, and carry it out at once, would, roughly speaking, cost about £100,000?—Possibly £100,000 to £150,000.

2980. And then, assuming you had all the lighthouses modernised, put in proper order, your annual expenditure on new works then would probably drop considerably?—I should think so, certainly.

Efficiency of Lighting of Irish Coast.

2981. You consider the coast is fairly lighted, taking it as a whole, if the lights were brought into accordance with modern ideas?—Yes, I think so. There are one or two cases where it would be better, perhaps, to alter the lighthouses altogether; take one away, and put another in another place; particularly Clare Island.

2982. This is not a matter which comes within your own personal knowledge, I remember the case of Wicklow Head, where you had three lighthouses, one on top of the other?—Yes, but there is only one in use.

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2983. Yes, but that shows that the others were built in error by somebody?—No, not in error; the same happened at Skelligs. I do not think it is correct to say they were built in error at Skelligs or Wicklow. And Slyne Head is another case in point; at the time they were built no such things as revolving lights had been thought of, and the only method of distinguishing one lighthouse station from another was either by colour or multiplying the number of lights, and the result was that at Maidens, Slyne Head, Skelligs, and Wicklow, and some other stations, too, we had two of them.

2984. One over the other?—Not necessarily one over the other, but alongside one another. There was one on each of the Maidens, there were two on the island on which Slyne Head is built, and there are two on the Skelligs. Afterwards, when we began to get more characters, better means of differentiating between the lighthouses, the Tearaght was made a revolving light, and also the Fastnet, and Loop Head was made an occulting light. They then put out one of the lights at Skelligs; there was no longer the necessity for having two; they left only the one light, but that one light, as a matter of fact, is not in the right position for a single light. When they were putting up two lights, they put those two lights in probably the best position for two lights, but neither of the lighthouses was in the right position for a single light, and the Commissioners went forward last year with a scheme to place a new lighthouse now on the Skelligs Rock in the right position for a single light. But the expenditure was considered to be too great, and they are now going forward for an alternative scheme, simply to put a modern light in the existing lantern, though there is no question about it that that lantern is not in the right place.

Lighting Apparatus: Length of flash desirable.

2985. You spoke about the length of flash at the Bull Rock. What is the length of flash that you adopt as being the most effective?—Well, that is a question which I should say is unanswerable. I do not think there is any such thing as a most effective length of flash; it depends upon a great many things.

2986. I have seen it contended that a flash of one-tenth of a second is altogether too rapid?—Again, even that requires qualification. The French Lighthouse Authority stated some years ago—they made rather a bolder statement than they might, I think, when they stated that one-tenth of a second was the most effective length of flash to give, when you could give it exactly; and since then they have changed that view, and they now state again, in rather a bold manner, that no flashes ought to be less than .3 of a second—three-tenths of a second. Well, now, I maintain that both those statements are wrong when stated in that bold manner. On French apparatus the lenses and prisms extend over a total vertical angle of about 140 degs., and the divergence from the top prisms is I think, about half the divergence from the centre of the lens: what is stated as the length of the flash, in ordinary practice is the divergence from the centre of the lens; therefore, when a Frenchman speaks of one-tenth of a second flash, the real divergence of the beam of maximum intensity, which is the only part of the beam which is of importance, is only one-half one-tenth of a second. Well, now, if you take the Fastnet apparatus and compare it with that, the Fastnet is a biform apparatus in which the vertical angle is only 90 degs., and the consequence is that the proportion between the length of the beam of maximum divergence and the length of beam as ordinarily stated, instead of being only 50 per cent., is about 83 per cent.; and the consequence is that, supposing a French apparatus and the Fastnet apparatus were put up side by side, both of them giving a nominal flash of .3 of a second, the French flash would really be only .15 and the Fastnet would be about .25, so that it is impossible to make a definite statement of that sort, to say that the flash should not be below one-tenth or one-third, or anything else.

2987. In general terms, you employ a longer flash than the French?—Well, I do not know that we do. The French authorities, in their modern apparatus, have limited themselves to .3, and a great many of their modern lights are up to half a second, and our flashes also vary very greatly. The Fastnet, for instance, is rather over one-sixth of a second. The flash on the Fastnet is about the same as the flash at Ile Vierge. Those were two apparatus put up at about the same time, and though the Fastnet was probably our best way of doing the thing, and the Ile Vierge was their best way of doing it, the flashes are about the same in actual duration of flash of maximum intensity.

2988. What type of burners? You say you make them at Kingstown?—The incandescent oil.

Type of oil burner employed by each Light-house Authority.

2989. Is it a patent burner?—It is not a patent, but it is a design of my own; we designed it in 1900, and it was the first burner in which there was no obstruction to the light by any of its own apparatus.

2990. You are acquainted with the burner designed by Mr. Matthews, and used by the Trinity House?—Yes.

2991. That burner is not used by the Scotch?—No.

2992. And you do not use the same burner as the Scotch people use?—No. Mr. Stevenson, when he was starting to use incandescent burners, asked me whether we could supply him with our burner, and I advised him then to adopt Chance's burner. I believe that Chance's burner is for practical purposes as good as ours. I prefer ours myself; it is a little bit cheaper to make, but Chance's burner was a thing actually on the market, which Mr. Stevenson could buy. I told him that I thought ours was slightly the best, that Chance's was practically equal to it, and that as it was to be bought straight on the market I recommended him to get it.

2993. As a matter of fact, the three different Authorities are using three different types of burners?—Three different types of burners, but the Chance burner and my burner are identical in principle.

2994. They are more nearly allied than the Matthews burner?—Yes, the Matthews burner is an adaptation of one of the commercial burners, it has an overhead retort.

2995. It is of a more complicated type?—Oh, very much more complicated.

2996. And you use the mercury floats?—Yes, we use mercury floats.

Mercury floats.

2997. Which are a French invention?—They were a French invention originally; our mercury floats are similar to the French in that we can lower the mercury floats to clean them, and raise them again inside an hour, but our trimming stages and burners are stationary, whereas the French support them on the float, and revolve them with the lenses.

Fog-signals; Cost of explosive,

2998. With regard to explosive signals, you have told us that you attach considerable importance to the use of explosive signals; you consider them most effective, but you admit that they cost more than the siren?—Enormously more in maintenance.

2999. At what figure, roughly speaking, would you estimate the annual expenditure on an explosive signal used at 5 minute intervals?—Well, it varies largely in different cases.

3000. According to the prevalence of fogs in the locality?—Yes, the Fastnet is £260 a year, on an average. That is a 5 minute signal. Blackhead is another 5 minute signal; if you get the cost of it, it is very likely more than £100 different.

3001. Higher?—Or lower. I mean to say, there is very great variation.

3002. You have two lightvessels still equipped with sirens of high and low note?—Lighthouses.

Sirens with more than one note.

3003. Lightvessels?—Oh, no. We have lighthouses fitted with high and low notes; our lightships are both single note. Mew Island and Inishowen are the two lighthouses where we have a high and a low note, and Bull Rock is a high and a low note too—three of them.

3004. Three lighthouses?—Three lighthouses.

Experiments: Difficulties of carrying out, with fog-signals.

3005. Now, with regard to experiments, you have told us already—I think I need not say very much about that—that your general opinion with regard to experiments is that you consider that they are desirable—that experiments should be undertaken. I should say that experiments with regard to overcoming the difficulty of the area of silence would be important experiments. I mean, the knowledge on that subject appears to be still very vague?—The knowledge of sound signals from beginning to end is very incomplete. It is knowledge which, in my opinion, can only be obtained usefully during fog; and therefore, in my opinion, the expenditure of any large sum of money on experiments carried out on our coast in places where fog-signals are used, like at the Isle of Wight, in fine weather, with regard to silent areas or anything of that sort, I look upon as absolutely and utterly useless.

3006. But still, seeing that we have not any considerable scarcity of fogs in this climate in the winter time, you would consider that carrying out experiments during the time that fogs are prevalent would be desirable?—If you can devise a means of doing that without sending ships ashore. That is the difficulty. My opinion is that the place to carry out fog-signal experiments is in some locality where there is no fog-signal within some hundreds of miles, so that it is an impossibility by your experiments to mislead ships. And, of course, to do that, it will cost a great deal more money than carrying out the experiments on an existing fog-signal station. And, in my opinion, the experiments with regard to matters like the silent area are absolutely useless if carried out at a fog-signalling station, because it is necessary to maintain the true character of the signal; and if you try to compare different instruments with a view to find out the one that happens to be better than another, and with the different instruments to maintain the true character, the result is that sometimes a ship will hear one of the instruments and not the other, and that will destroy the character.

Difficulty of obtaining funds for,

3007. But you have found difficulty in inducing the Board of Trade to consent to the expenditure of money for experimental purposes?—Well, it is rather this: That the Board of Trade were not at all inclined to give money for experimental purposes without getting very full information on the subject of experiments; and it is rather a difficult matter to give full information beforehand on the subject of experiments, unless the experiments are going to be on a big scale.

3008. You tell us that the French publish their experimental work?—When I say "experimental work," I mean they do not publish it until their experimental work has come to some results.

3009. But still, you eventually get information?—They issue pamphlets, which they send to us. They send to all Lighthouse Authorities in the world.

3010. You receive these pamphlets, I take it?—Yes.

3011. From your perusal of these, would you be led to believe, in a general way, that the French Lighthouse Authorities spend more money on experimental purposes than we do?—I think so. Of course, I cannot say the amount of money; but what I do say is this: They experiment in a much more systematic manner than we do.

Control of Trinity House and Board of Trade over Irish Board:

3012. The Trinity House has refused to sanction some of your proposals. You say within the last three or four years they have insisted on details?—Yes, that is so.

Delays caused by,

3013. Have you, in a general way, found the necessity of obtaining sanction from the Trinity House to your schemes result in any considerable delay in carrying out your work?—Oh, in some instances it has—very much. If you will couple the Board of Trade with the Trinity House, my answer is decidedly yes; but I could not say offhand whether the delays more often occur through the Board of Trade or through the Trinity House. The Board of Trade and the Trinity House between them delayed the work of the Fastnet a matter of about four years, I think.

Mizen Head: Policy of Irish Lights Board as to fog-signal for,

3014. Well, with regard to the fog-signal station at Mizen Head, that you referred to in your evidence, is it true that the Irish Lights Commissioners for many years refused point-blank to establish a fog-signal station at Mizen Head?—The Irish Lights Commissioners always maintained that they thought it was a mistake to put a siren fog-signal at Mizen Head, and they still hold that opinion.

3015. They still hold that opinion, but you have it in the estimates for this year?—Yes; because we have been instructed by the Board of Trade, despite our opinion, to put it in. I may say it was in last year's estimates, and it is sanctioned, and the work is in hand—we have commenced it. The Elder Brethren originally backed up the Irish Lights Commissioners—I am speaking from memory—in saying that a fog-signal at Mizen Head would be a mistake. But the shipowners pressed for it so much that first of all Trinity House gave way, and subsequently the Irish Lights Commissioners yielded to the statutory instruction of the Board of Trade, and are placing it there. The Irish Lights Commissioners, when they did agree to this, recommended that, if there was to be a signal there, there should be a powerful light along with it; but the Board of Trade decided that there should not be a light—that there should be a fog-signal only.

3016. I understand the position to be, with regard to this Mizen Head fog-signal, that the Irish Lights Commissioners are practically erecting it under protest?—I think so.

3017. And they hold that if the fog-signal should be erected at all, it should be accompanied with a powerful light?—That is, or at any rate was, the opinion of the Commissioners. I am not authorised in any way to give an answer to that question. You must take that answer as being from me personally.

Irish Lights Board: Observations on alleged unbusiness-like methods of,

3018. I suppose you are aware that some cases have been laid before the Commission in which it is alleged that the Irish Lights Commissioners have not shown wisdom or diligence in the carrying-out of work?—Yes, I heard of it.

3019. And that there are some of those cases in which your department is specially concerned?—Yes.

3020. You might wish to have the opportunity of saying something with regard to one or two of those cases?—I did not prepare any replies to them, because I was under the impression that the Commissioners wished to reply to them themselves. There are one or two things I noticed on which I could give you an offhand reply. One is—the first thing—with regard to the "Princess Alexandra," it is stated that a mistake was made by the Commissioners' Engineer. Well, that was not I, because I have nothing whatever to do, as I have already told you, with the steamers. Then there is another question in there which I think I may throw some light on. It is a question of Barr Point.

3021. I should like to hear what you wish to say on it?—All I was going to say about that was that the original proposal—it was before I was Engineer—was to put up a fog-bell at Barr Point—to take the bell from Roches Point, which is driven by a clock, and erect it at Barr Point; and the cost of doing that was a very small matter, about £100 or so. But we would have required two keepers to attend to it. It is a mile away from the lighthouse, and could not possibly have been kept going without two keepers. So, when I came to deal with the matter, I pointed out to the Commissioners that it would be a great saving of money if they would allow me to put in an electric installation, which would enable the keeper at the lighthouse at Larne to ring that bell over a mile away; and they immediately agreed to it, and went forward for the extra expenditure of £500 or £600—I forget exactly what it was—and that has resulted in an annual saving of £250, I suppose.

3022. Therefore you hold that the extra expenditure afterwards incurred was more than justified by the saving effected?—Oh, very much.

Administration, economical.

3023. As you say the Commissioners purpose to reply to these various matters themselves, I shall not ask you any more on that point. I should like to ask you, as a final question: Do you consider that the Irish Light service as a whole, taking the number of lighthouses, buoys, and lightvessels on the coast of Ireland into consideration, and comparing that with a similar number of buoys and beacons on the coasts of England and Scotland, is carried out as economically and efficiently as in either England or Scotland?—Well, I have not really proper data on which to go, on which to give you a really proper answer to that. It is a question of accounts, and I have not any means of access to the accounts. But my impression, gained from the published Board of Trade accounts, is that the Irish Lights are very economical indeed.

3024. You think that they compare favourably with regard to economy of administration?—Very favourably; but I am simply going from the very incomplete returns which the Board of Trade publish. Of course, I may be completely mistaken; but, judging by them, the Irish Lights are the cheapest managed of the three Boards. The administration expenses, including office, stores, steamers, and miscellaneous, during the last 5 years amount to 33¾ per cent., 29½ per cent., and 25 per cent. of the total expenditure of the English, Scotch, and Irish Boards respectively.

3025. (*Admiral Henderson.*) Are you acquainted with the systems of administration of the Trinity House and the Scotch Board?—No, I cannot say that I am. Of course, I know something about them.

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3026. You do not know enough to be able to say which you consider the best, or do you?—No, I am afraid that is a thing I have never gone into.

3027. Do you attempt to apply any part of their systems, either administrative or mechanical, to your own work?—I do not quite understand what you mean, Sir.

3028. I mean, do you attempt to make any study of their method of doing things, and taking up the best of it to apply to your own?—Do you mean as regards general administration?

3029. Anything connected with the administration? When I say "administration," it means a good deal to do with the repairs?—So far as the engineering work is concerned?

3030. Yes, I am speaking of that?—I have always done all I could to keep myself acquainted with what was going on, and the methods of doing work in Trinity House and Scotland, but I cannot say I have succeeded in making myself very fully acquainted; and certainly, in any case where I have found anything which I thought was an improvement on our methods, I immediately would adopt it.

Lighthouses: Efficiency of, in Ireland.

3031. With the exception that you have mentioned just now in your evidence, would you say that your lights are up to date?—Well, I gave a list of those which I consider are really up to date, and by "up to date" what I mean is, really good lights with economy.

3032. I mean, are they up to date from the point of view of efficiency for navigational purposes?—So far as the navigator is concerned, I should say very nearly all our lights—there are very few exceptions—are quite good enough for their purpose.

3033. Would you say generally that the Irish coast is as well lit as the Scotch coast or the English coast?—I should say it was quite; in fact, I think it is better, taking into account the requirements in each case.

3034. Would you say that the coast of the United Kingdom would compare favourably with the lighting by any other Powers that you know about, or any other coast?—I think the French coast, for instance, is more efficiently lighted. The French, I may say, have really gone into the matter of tackling the question in a big way, and have really gone and altered all their lights; nearly all their lights are modern, and it is not the case that nearly all our lights are modern.

3035. Are there really many important new works that the Irish Board want to undertake? I am not putting this question as to conversion. But are there really any new works of great importance that have to be undertaken that are of pressing importance, that you think the Board should undertake?—Quite apart from conversion?

3036. Yes?—I really do not know that there are; there are one or two very debateable points.

3037. But there is nothing that you think really very urgent?—There is nothing which I know of which the Board are particularly anxious about in the way of an absolutely new station.

3038. What are the debateable points?—One question is that at present there is a light on Inisteraght, and it is a matter which was very much debated before that light was placed there, as to whether it ought not to have been a rock lighthouse on the Foze Rock, which is a long distance outside Inistearaght, but which would be enormously more costly.

3039. What is the other point?—There is another point at Inistrahull; we have a light and a fog-signal on an island inside the Torr rocks. The Torr rocks are more than a mile outside Inistrahull, directly in the direction in which ships approach, and I do not think there can be any possible question that the right place to have the fog-signal would be either at the Torr rocks or on a lightship outside the Torr rocks.

3040. But it is not a matter of urgency really?—No, I do not suppose it is.

Repairs: System of executing,

3041. What is your system for the repair of the machinery and optical instruments of the lighthouses generally?—There is no annual repair of the machinery. The machinery is inspected by me annually. The keepers have their strict injunctions to keep me informed immediately of anything they see going wrong, and if during the inspection I find that a machine is showing undue signs of wear, or anything of that sort, which has not been reported to me, I drop on the keeper for not having called my attention to it. And the Inspector in his inspections looks over the machinery and that sort of thing, and sees that they appear efficient, and whenever we know of anything wrong we immediately send a man out to repair it.

3042. Where from?—From Kingstown.

3043. That is to the whole coast; it is your centre for all repairs?—You see, so far as repairs to lighthouse machinery and that sort of thing are concerned, it is a very specialised work.

3044. Do you have to send very much machinery back to Kingstown for any purpose?—No, very little.

3045. State the number of mechanics that you send out yearly for this purpose?—Well, as I say, we have six fitters whom we employ at Kingstown, and we send them out.

3046. Are they often all away, or are there sufficient to do it?—As a general rule, three or four are away; some repairs as well as new work are carried out in Kingstown.

3047. What would you estimate, so far as a year's work is concerned? How many men for the year?—Well, we do it all with those six men.

3048. But, as I understand you, they are not fully employed?—Not always outside, but we do keep six men fully employed. For instance, our spare lightships are kept in Kingstown, and the repairs to them, of course, are carried out in Kingstown.

3049. Will you give their cost—I mean, including their travelling expenses; what it costs for the annual upkeep in that sort of way? I do not want you to do it now; it will do if you send it in?—Do you mean the repairs to the machinery only; that is, the fitters?

3050. I mean the optical apparatus generally. The Scotch Board say they keep the whole of their apparatus in efficient order with three men a year; that these three men go round and visit every single lighthouse every year, overhaul it, and put everything to rights, and by this constant annual refitting an enormous amount of work is saved, because parts are not worn down?—I am afraid I cannot give you that; we have not that particular system, and these men are employed for new works and for special repairs, in addition.

3051. Inside?—Inside and outside.

3052. I only want to know what their work is outside?—It would be exceedingly hard to get it. If you like, I will see what I can prepare in the way of a statement on that.

3053. I am asking again if this is not an expensive system, the constant travelling of these men, and the necessity of conveying material to and fro?

3054. (*Chairman.*) Perhaps you will give us all the information you can?—Yes.

3055. (*Admiral Henderson.*) I mean, when you you take a centre such as Kingstown, and you are sending the men out in all directions to and fro, is it not rather an expensive system?—Well, travelling expenses and that sort of thing are very high.

3056. And you have to pay these men's subsistence?—These men get 6s. a day. One of our men gets 7s. a day; he is a sort of leading hand; and the others get 6s. a day. And then they all get 2s. a day personal allowance.

3057. I wanted to know really if there is any cheaper way of doing it. If you had the country divided into districts, with one man in each, for instance, the enormous and constant travelling could be avoided?—I do not think so. Ireland is a difficult country to travel about. There is only one centre to the railway systems in Ireland, and that is Dublin. Very often, to get from one place on the West Coast to another place on the West Coast, the shortest way is to go to Dublin and back again. We happen to be situated at the centre, and all lines radiate out from us, and I think you would find it exceedingly difficult to get centres.

3058. I only want to compare your Board with other Boards?—Yes.

3059. Now, I should like to know if you would give us a list of the trades of all men that you employ, not only at the Kingstown workshops, but on the coast; men you have at other places on the coast?—We have no other places.

3060. Nobody under your control? Have you not something on the West Coast—a base somewhere?—No.

Buoys: System of repairing,

3061. No other base at all?—No other base at all. We have buoy depôts. We have a buoy depôt at Roches Point, at Cork. The keepers receive the buoys there, and we give them an allowance per buoy, according to the size of the buoy. They get £5 for a complete gas buoy, with the whistle and bell on it, for scraping, cleaning, and painting it, and putting it out on the station again.

3062. That is, they are paid by the job, so to speak?—They are paid by the job, and they employ labour.

3063. On the job?—On the job, and this is the repairs to buoys at Roches Point, and at Larne, which is the other depôt. We send a blacksmith from Kingstown as soon as the lightkeeper has got all the buoys cleaned and ready for him. He sends up a report of all the repairs that are wanted, and if necessary, if there is anything at all doubtful, my mechanical assistant goes down and examines it. We prepare the necessary new parts at Kingstown, and send it out with the man to Roches Point or Larne, or wherever they may be, and in a couple of weeks he would do all that is necessary to repair these buoys in ordinary practice.

3064. I think you said you had nothing to do with the steamers at all?—I have nothing to do with the steamers.

3065. Do you lend any assistance or offer any advice to the other Boards, to the Trinity House or to the Scotch Board?—You do not communicate with them unless you are asked?—No, never, unless we are asked or unless we want to get something from them.

3066. Do you compare engineering costs of maintenance and repairs at all?—No, I do not think we do.

Engineer: Duties of,

3067. The lightships you have nothing to do with, you said; you do not trouble about their repairs. Where are they repaired?—I am absolutely responsible for the lanterns and lighting apparatus, and for the fog-signal apparatus.

3068. Where are they repaired?—They are repaired by tender, sometimes in England, sometimes in Scotland, and sometimes in Ireland.

3069. You have nothing to do with the hulls of the ships?—I have nothing to do with the hulls of the ships; that is done by the Inspector. The lighting and the fog-signals are done by me.

Engineer's Department: Method of accounting

3070. Are the charges for your work shown anywhere? I mean to say, the departmental charges?—No, there is no attempt whatever made in our accounts, according to the way the accounts are kept by the Board of Trade's desire, as I understand, to cost the work, and get at what the different parts really come to. Anything of that sort I have to do entirely by myself, and such prime cost accounts as I am able to keep with my small staff are not very satisfactory.

3071. Supposing you make use of the Commissioners' steamers for conveying gear for a new work, is that charged?—No, it is not.

3072. And none of the Commissioners' plant that is used is charged?—No.

3073. Therefore it really means that whatever the cost is, that should be added to the total cost to give the true account?—Exactly; certainly.

3074. Does that imply, when you are able to use the steamers for new works and so forth, that they are not fully employed for the actual purpose of maintenance?—A steamer makes up a cargo to go round the coast to land stores and building materials.

3075. But you constantly want building materials if you are putting up new works, do you not?—Yes, whenever one of our steamers is going round the coast we send the building materials with her. Whenever we have building materials and that sort of thing that I want to send I inform the Secretary, and ask if I can have a steamer to take them. If there is a steamer available or a steamer is running round that way and she has room on board she takes them.

3076. Supposing she has not room?—I have to send them overland.

3077. Or hire a boat?—Or hire a boat. Generally the quantities are too small to make it worth while to hire a boat; we generally send them overland.

3078. You do not do any manufacture of lights or their components?—We manufacture our burners; that is the only thing we actually manufacture as a regular thing, but we make various small fittings from time to time. Just lately, for instance, we have made entirely at the stores an apparatus for firing fog-signal charges.

3079. It is a small matter?—It is a small matter; quite a small matter.

3080. Not anything in comparison with the amount of manufacturing work which they do at the Trinity House. You know what they do; you have been over the Blackwall workshop?—I know what they do; I know what money they spend.

3081. Is that costly?—I do not know, because I do not know what they do for it; all I know is from the Board of Trade returns.

One Central Lighthouse Authority: Would not be economical.

3082. I am going to ask you a question which I want you to look at from a national point of view. Do you think if the three Lighthouse Boards were put under one control with a proper decentralisation system of management there would otherwise be great economy?—I very greatly doubt it. So far as I can see our present arrangement, whether it is up to date or not, seems to me to be extremely efficient from the economical point of view. I mean to say the amount of work which we get done without paying money for it is very big.

3083. In what way do you mean?—I mean to say the amount of work which our Commissioners do.

3084. Oh yes, but you have got a very big Board?—We have, but the number of men who really do the work is not very large. Of course it is the Inspecting Committee that do most of the work.

3085. You are speaking from the Commissioners' point of view entirely; I am looking at it from the point of view of administrative efficiency?—I am looking at it from the point of view of administrative efficiency. I do not see how the things are to be managed at all if you do not keep a department in Ireland, a department in Scotland, and a department in England. And I do not see what gain there is going to be at all on the present Irish Lights Board, because I take it that the present office expenses will have to be all maintained; I do not see how you could reduce them; they are exceedingly low for the amount of work done. And you will have to have a central body in London which, I presume, would have to be paid for doing work which at present is done for nothing by the body which is in Dublin. It is a thing I have looked into pretty carefully, and I cannot myself see where you are going to make any saving by it, so far as the coast of Ireland is concerned.

3086. Of course where you get separate bodies for the same sort of work over what is after all a comparatively small area expenses do increase?—There is a liability to it.

3087. It is a watertight compartment system, so to speak?—But I cannot see where we are going to save.

3088. Now, then, I will ask you another question. Under such conditions, supposing there was a central board here, could not one engineer do the work, supposing he is provided properly with a decentralised staff?—I presume he could.

3089. Supposing he had an assistant in Ireland who was well up in the work?—Yes, I should think so, but the assistant in Ireland would have a very great deal of work to do—must necessarily have it—on his own responsibility; and would require as large a staff as the present one, with the possible exception of the temporary draughtsmen.

3090. Have you any suggestions to put before the Commissioners that would further the efficiency and the economy of the lighthouse administration of these three systems. Is there anything when you are thinking over the matter you could tell us?—I did not know that I was going to be asked questions upon a general statement of this sort; I really have not considered the matter sufficiently.

3091. You say you have not given any consideration to the matter?—I do not say I have not actually given any consideration to the matter, but I have not considered it with the view to stating my opinions at all.

3092. In what light do you regard the control of the Trinity House and the Board of Trade. Do you

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find that it gives you very much extra work; do you think it goes into too minute details?—Well, I think that the old arrangement when the Trinity House did not bother about our methods of doing work, but simply had to sanction characters of lights, was better than the present arrangement in which they go into details; but so far as the Board of Trade control is concerned I think it is sound. It sometimes gives a little extra work, but I think on the whole it is a sound principle; I think it works well.

Notices to Mariners: Issue of,

3093. Do you issue any Notices to Mariners?—Notices to Mariners are prepared by the Inspector. I have to check them over and see that his actual description of the light is correct and that sort of thing.

3094. And do you issue them?—No, that is done by the Secretary. I think it is the Secretary that does it; it is either the Secretary or the Inspector, I am not quite sure.

3095. You did not give a distinct answer as to the number of years you took for some of your returns; have you any idea as to the number of years you took?—I could not give you that at all; I could give you a statement of the number of years I took; you would want to get it for about 10 years at every one of our stations to be of any value. It varies so enormously.

Illuminants:

3096. I suppose what you say about incandescent oil that is being used now is not the last word about lighting. As soon as you are complete with incandescent oil you will probably find out some new illuminant coming along such as acetylene, and you will probably want to alter it all over again?—That is, of course, quite a possibility. I am very strongly in favour of acetylene for unwatched lights.

Inspection of Seamarks: Value of, by Commissioners.

3097. Are you of opinion that inspection by the Commissioners is of any real value the way they go round?—I think it is of very great value.

3098. As a body?—The Commissioners go round, from three to six of them; about four of them, I should say, on an average go round.

3099. Your Superintendent and your Inspector and yourself, if you go round, would be almost sufficient?—I always look on the Commissioners' inspection as being a check on me and the Inspector.

3100. You think that is a good thing?—Well, I think it is; possibly I may consider that I personally require no supervision, but I think anybody else might.

3101. (*Sir Frank Adam.*) You mentioned that you had to lend an engineer from your department, when you are requested, in connection with repairing or other works on lightships and steamers?—On the the steamers only, practically.

3102. Is he a qualified marine engineer?—Yes, he is.

3103. Has he a certificate?—Yes, he was the chief engineer in the "Princess Alexandra" for a number of years, and then he was appointed to this post.

3104. In fact promoted?—Yes.

Local lights: Control of,

3105. I wanted to ask you—from your experience and knowledge, where a harbour has been started with harbour lights and harbour authority in Ireland—whether any existing old lighthouse has been handed over to them at any time?—I do not think so.

3106. Never to your knowledge?—I do not think so; I am not aware of its ever having happened. My impression is that the Commissioners have never handed over a lighthouse.

3107. In connection with that you mentioned the terminus of the London and North-Western Railway at Greenore, that their buoys extended beyond your lighthouses?—Yes, we overlap.

3108. Their buoys are for their own particular traffic?—Yes.

3109. Do you think that the general requirements of navigation in these seas require your lighthouses still, apart from the London and North-Western use?—Yes, certainly, because it is the entrance to Newry, and a harbour of refuge, too.

3110. Your answer is quite sufficient for me that, in your opinion, it is so?—Yes.

Steam-vessels: Economy of system of,

3111. Have you or the Commissioners ever considered whether it would be cheaper on all occasions, when you want steamers for any purpose whatever, to hire tugs or steamers instead of keeping your own?—Of course, I have nothing to do with the steamers, but I can answer this so far. On two or three occasions we have hired owing to being compelled to do so. The Board of Trade delayed for a very long time sanctioning a new steamer to replace the "Princess Alexandra," but ultimately the "Princess Alexandra" broke down, and she was for a long time lying up in Liverpool while the Board of Trade were trying to make up their minds whether or not they would sanction the new steamer, and during that time we had to hire ships, and I believe that the difference in cost was very marked indeed, and they are much in favour of our having our own ships.

3112. It would only arise when you could not continually use your own ships. I do not want you, in your reply, to miss my point, because you might at a particular time want a particular steamer and do not get it, and you might have work which necessitated your hiring, but there might be other times of the year, extending over months, when you do not use the steamers you have, and my point was to get a general opinion from you as to whether, under all circumstances as you know them at present existing, whether there would be anything in the assertion that it would be cheaper when you wanted a steamer for any purpose whatever, to hire it than to have your own?—I do not think so, for two reasons in particular. I would say, apart from all other considerations, that the steamer that is fit to work buoys without damaging them wants to be a specially built steamer, and we have two steamers now which are fit to work buoys and do other work of that sort, and if we had to do without those two steamers I should have a very largely-increased expenditure on repairs to buoys. Not only that, but a large number of buoys would be out on their stations which would not be in proper condition. Secondly, I am convinced that hired steamers would prove far more costly.

Lighthouses: Alteration of position of,

3113. One more question only. You have mentioned that there is a lighthouse on the top of a mountain which you think would be better somewhere else?—Yes. Clare Island.

3114. You know there have been lighthouses which have been removed from their original position at great cost, and have practically been built on rocks in the sea?—Yes.

3115. Looking back on the past ten years, would you say that the expenditure on new works has largely been added to on account of permanent lighthouses or putting lighthouses in a better position than they were in in the interest of traffic?—So far as we are personally concerned in Ireland, such a thing has hardly ever been done at all. The only case that I know of really is an alteration at Sligo—the Oyster Island Light. There was a pair of leading lights there, leading through the channel. Well, the bank shifted, and the two leading lights led right over the middle of the bank, and they pulled the two leading lights down and put a new light which did meet the case.

3116. In the case of the experience of your Board, the added expenditure would not be so great as in the case of the Trinity House and Scotch Boards during the same period?—I really do not know how many the Trinity House and Scotch Boards have moved. I know the Trinity House have moved two or three.

Chain cables: Diameter of,

3117. (*Mr. Ennis.*) You have a large number of lightships?—Yes.

3118. What is the diameter of the chains for moorings?—It is $1\frac{5}{8}$, $1\frac{3}{4}$ on some of the ships. That is really not in my department, but in the inspector's department. I think he is using $1\frac{5}{8}$ inch now.

3119. (*Admiral Henderson.*) Are there any ports which the Commissioners light which you think should be turned over to the local authorities?—I think a great many of them ought to, but there are no local authorities to turn them over to.

3120. But where there are local authorities will you send in a list?—Yes.

Unwatched Lightvessels:

3121. (*Mr. Ennis.*) In connection with lightvessels, have you ever taken up the question of unwatched lights?—Yes.

3122. You have not experimented on that subject, and on unwatched lightvessels?—I do not want to speak too positively on it.

3123. I ask your opinion as to the efficiency of that system?—My own private opinion is that in any case where an unwatched light will do a lighted buoy would do.

Fastnet Lighthouse: Dispute with Board of Trade as to electrical communication with,

3124. There is just one more question I omitted, and it is with regard to this: It has been stated that the Irish Lights Board practically defied the Board of Trade with regard to the Fastnet, not with regard to the construction of the lighthouse on the Fastnet, but

with regard to the electrical communication with the shore. Can you give us any information on that point?—Do you say that the Irish Lights Board practically defied the Board of Trade on the subject of the Fastnet electrical communication?

3125. Practically defied the Board of Trade with regard to electrical communication?—I do not think so; we have electrical communication.

3126. With the shore?—Yes.

3127. At the Fastnet?—Yes, and not only that, but for years and years we have been experimenting with electrical communication at the Fastnet.

3128. How long has the electrical communication been in existence?—The existing satisfactory one since the new tower was built. The Marconi system of wireless telegraphy is in existence now. It was installed in the new tower before the new tower was completed.

3129. I do not speak of the Marconi system?—The system we had before was a matter of constant experiment. It was in use occasionally, but was constantly breaking down.

3130. You have no knowledge then of a dispute between the Board of Trade and the Irish Lights Commissioners with regard to it?—I was not aware there was a dispute; absolutely unaware of the fact. It may possibly be—yes, I remember there was some question about their asking us if we could put it up immediately at one time when there was no possible means of doing it as the rock was simply overrun with workmen. That delayed, I think, the putting in of the wireless system for about a year, but the moment we could possibly allow it to be done we did.

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3131. There has been complaint of that kind?—I never heard it; there must be a mistake. There is one thing I did not give you at all. Do you want a return of the number of beacons and perches. There is one thing I wanted to mention, that at present we are carrying out experiments with reflectors, an invention of Sir Howard Grubb's, with which we hope to be able to enable passing ships themselves to light buoys and beacons. By showing a light from the ship you will get a reflected light back which will enable a great many buoys and beacons which it would not pay to put a light on to be easily picked up at night at very small expense.

Experiments: Grubb reflector.

Captain ALLISON WOOD, called in; and examined.

Captain A. Wood.

3132. (*Chairman.*) You are, I think, Secretary of the British Shipmasters' and Officers' Protection Society?—Yes, Sir.

British Shipmasters' and Officers' Protection Society: number of members of,

3133. And you speak on behalf of the society?—On behalf of the society, yes, Sir.

3134. Can you tell us how many members there are in the society?—Between 1,200 and 1,300.

3135. Is that a society which extends over the United Kingdom?—All over; all the different parts.

3135a. With its headquarters in Sunderland?—With its headquarters in Sunderland.

3136. And you represent the society as a whole?—Yes, Sir.

3137. I think you wish to make some suggestions with regard to the constitution of the Lighthouse Authorities?—Yes, Sir; as a representative of shipmasters I think it would be a good thing for navigators if the three Boards were formed into one central Board and controlled by gentlemen, constituted of gentlemen, who have distinguished themselves in the lighthouse administration, engineering and surveying, and also of members drawn from the Trinity Brethren and the principal Harbour Boards.

The Central Lighthouse Authority: Advocated.

3138. Your suggestion is that the present authorities should be swept away and an altogether new Board formed?—A new Central Board formed, Sir.

3139. I think you also suggest—so I gather at least from the *précis* which you have submitted to the Commission—that it would be desirable that there should be a minister?—Yes, a Minister of Commerce, Sir.

3140. Responsible for lighthouse administration?—Yes.

3141. How are those two proposals compatible with one another—administration by a Board and responsibility attaching to a Minister?—Well, I thought something similar to the Board of Trade.

3142. The Board of Trade is not responsible for the lighthouses now?—I thought they were. I thought the whole three Board were under the direct influence of the Board of Trade.

3143. All proposals for lighting the coast emanate from the Lighthouse Authorities. The Board of Trade has got a power of financial control?—Only financial control?

3144. That is all. You have not considered, perhaps, how these two proposals of yours could both be carried into effect, because if you entrust the administration of the lighting of the coast to a Board, how could you make a Minister of Parliament responsible for it unless he had absolute control of the Board?—That is what I mean, Sir, and that is what my society means, that he should have absolute control of the Board.

3145. Then your Board would resolve itself into an Advisory Committee?—Well, it would be a kind of Advisory Committee.

3146. The whole power and responsibility would be with the Minister?—Well, he would have the responsibility.

3147. If he has the responsibility would it not be necessary that he should also have the power?—Naturally, Sir, yes.

3148. So far as the Trinity House is concerned your view is that its administration has been satisfactory?—Capital, Sir.

General Lighthouse Authorities: Administration of, is satisfactory.

3149. If the administration of the Lighthouse Authorities throughout the United Kingdom was in the hands of Trinity House, would that meet your views?—We think it would be controlled better.

3150. Do you base that opinion on any actual facts?—On the constitution of the Board, Sir, taking into consideration the members of the different Boards, we do not consider them practical men—the Irish and the Northern Lighthouse Boards.

3151. You do not base your opinion on any actual facts in connection with the lighting of the coast; you merely think that boards with the constitution of the Irish Board or the Scotch Board are not likely to administer well?—That is our position, Sir.

3152. But you have no actual quarrel with their administration?—No, Sir.

3153. No definite complaints to make?—No, Sir.

3154. You say that in the administration of lighthouses the Advisory Committee should be composed of those interests most nearly allied and connected with the use of lights. Does that mean that you think the shipmasters ought to have a representative on the Advisory Committee?—I think so, Sir, and my society think so, too.

Central Lighthouse Authority: Suggestions for constitution of,

3155. Are there any other interests which you consider ought to be represented on an Advisory Committee which are not now represented?—No, Sir; just the Lighthouse Board.

3156. Any other interests which should be represented on the Advisory Committee besides those which are now represented. At the present time you have the shipowners and you have Lloyds; you think that the shipmasters also should be represented?—I think so.

3157. Are there any other interests?—No, Sir, we do not care about any of the others; we want the Mercantile Marine represented by practical seamen; others, I presume, are quite capable of looking out for their own representation.

3158. Have you any suggestions to make as to improvements of any particular lights?—Yes, Sir, there is Mizen Head especially. We have been agitating for three or four years for a light and fog-signal on Mizen Head, which is a very prominent headland.

New Works and Improvements at present desirable: Mizen Head light and fog-signal.

3159. You want a light there as well as a fog-signal?—Yes, Sir.

3160. Have you, as a body, made any representation to the Lighthouse Authority on that point?—The

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Shipping Federated Societies did, Sir, as a whole, but not individual societies. The Federated Societies, which comprise the Mercantile Marine Service Association of Liverpool, the Scottish Association, and the British Shipmasters' and Officers' Protection Society There was a representation made. I think it was in 1900; either in 1900 or 1901.

3161. Did they make a representation to the Irish Lights Board?—To the Board of Trade, Sir.

3162. What reply did the Board of Trade give?—About the necessity of a light being established at Mizen Head and a fog-signal.

3163. What reply did the Board of Trade give?—Oh, it would be under consideration.

3164. The Board of Trade did not refer you to the Irish Lights Board?—No, Sir, it would be under consideration, and I do not know of any other reply being made to the secretary. Of course I am not secretary to the Federated Societies now; I was at that time.

Flamborough Head fog-signal.

3165. Are there any other particular lights with regard to which you wish to make representation?—Now, there is Flamborough Head. I see there was a notice issued on the 29th of last month that it is going to be improved, but we would also like the fog signal improved. We made a representation in October, 1905, with reference to this fog-signal.

3166. Did you address yourselves on that occasion to the Board of Trade?—To the Trinity House, Sir.

3167. Are there any others?—When we have represented anything to the Trinity House we have generally had prompt replies.

3168. Why did you not address yourselves to the Irish Lights in the case of the Mizen Head?—Well, I could not say now whether it was sent to the Northern Lights Commissioners or the Irish Lights Board, or to the Board of Trade, but if I remember rightly it was sent to the Board of Trade, Sir. Of course that was by the vote at the committee meeting. They passed a resolution as to where the secretary had to write to, either the Board of Trade or the Commissioners who are responsible for the lighting.

3169. You mentioned two lights; are there any others?—Flamborough Head I have mentioned, Sir, and there is St. Mary's Island. We should like to have a fog-signal on the East coast.

St. Mary's Island fog-signal.

3170. Whereabouts is that?—It is between Tynemouth and the Farne Islands.

3171. Have you communicated with the Trinity House on the point?—No, Sir, not yet.

3172. Do you propose to do so?—Yes.

Cromer fog-signal.

3173. Any others?—Then there is a fog-signal at Cromer. There is none there now; that is a prominent headland.

3174. Have you communicated with the Lighthouse Authority in that case?—No, Sir. This matter is coming up at our monthly meeting next Wednesday.

East Dudgeon Buoy.

3175. Any others?—Well, there are buoys, Sir. There is the East Dudgeon Buoy. A bell buoy was put there some two years ago, on a representation made by my society to the Trinity House. They put a bell buoy; we wanted a gas-buoy, and this bell-buoy was, of course, of very little use. In smooth water, of course, the bell does not ring. It is right in the track of vessels; they take their departure from Flamborough Head, and this buoy lies right in the track, and we consider if we had a gas-buoy it would be a great advantage to mariners.

3176. Have you represented the matter to the Trinity House?—No, Sir, these matters have just been put before me lately, to bring before the meeting on Wednesday next.

3177. So far, the only case that you desire to bring before us, in which a representation has been made and nothing done, is the case of a light on Mizen Head?—Mizen Head, Sir, and also Flamborough fog-signal. A representation was made to the Trinity House about the Flamborough fog-signal; there is no alteration yet. We had a reply from the Trinity House three days ago. It is still under the consideration of the Trinity House.

Central Lighthouse Authority: Advocated.

3178. (*Mr. Ennis.*) You have expressed the opinion that you think that the three Lighthouse Boards should be abolished, and a new Central Board created?—Yes.

3179. You do not believe in the constitution of the Irish Lights Board or the Northern Lights Board, but you think the Trinity House are thoroughly qualified and expert men. I gather from your evidence that you have confidence in the administration of their business by the members of the Trinity House?—Yes, Sir.

3180. Well, then, why do you seek to abolish them? Well, so that we can get the three combined into one; the proportion would still be kept in the Central Board.

3181. But then are you aware what the constitution of the Trinity House is? I mean, have you considered what difficulty would arise in making a board representative of three countries on the lines of the present Trinity House, because the present Trinity House is so constituted that the composition of the Board rests in the hands of the Board's own members, and no one can interfere in that. I mean your proposal could not be carried into effect to leave the Trinity Board intact?—No, I do not suppose it would be left intact, Sir; in fact, those members we would like elected every three years; we would not like them to be permanent appointments.

3182. You do not like the Trinity House to be permanent?—No, let them be subject to election every three or four years.

3183. By what body do you suggest the Lighthouse Board or the Central Board should be elected?—That is a question I have not considered, who should elect them. Very well, it is a difficult question. I may say, Mr. Chairman, we have not given very much consideration to it, but having been requested by the Commission and asked if we were willing and wishful to send a representative, my committee decided that we should send one, else it is a matter we have not given our earnest consideration to. Lighthouse administration is, in fact, a question I do not like.

3184. I personally am extremely glad to get the views of shipmasters and the shipping community—I place great value upon it—but you see the difficulty that I put before you?—I do, Sir.

3185. You are aware that the Trinity House is a paid Board, and that the other two Boards are unpaid?—Yes, Sir.

3186. But if the Trinity House have done this work so efficiently as you suppose, another portion of your evidence would rather seem to contradict that, because you say the French lights are admittedly superior to the British?—Well, they are, I believe, Sir.

3187. And if they are admittedly superior to the British, and the Trinity House has been administering the British lights, either the Trinity House itself must be to blame for administration which has resulted in an efficiency inferior to that of France, or the controlling power of the Trinity House, the Board of Trade, must be to blame. On whose shoulders do you place the responsibility?—Well, I think the Trinity House has been hampered, by what I have read about it, by the Board of Trade. The Board of Trade has refused funds to carry out work—necessary work—so I have been informed by documents.

3188. And, therefore, you are inclined to ascribe to the Board of Trade more than to Trinity House any inefficiency that exists?—Yes, in restricting expenditure.

3189. With regard to this case you have placed before our Chairman as to Mizen Head, our Chairman asked why you did not apply to the Irish Lights Board. Are you aware that the Irish Lights Board recommended the light on Mizen Head, and were refused by the Board of Trade?—No Sir, I am not aware of that.

Representation of shipping interest on, advocated.

3190. You hold that whatever Lighthouse Authority would be constituted or remodelled in the three countries, or in any of them, that the shipping community, that is the shipmasters and the shipping community, as distinguished from shipowners, should have a representation on that Board?—I do, Sir.

3191. (*Admiral Henderson.*) You do not give any reasons in paragraph 1 for the suggestions contained there. Have you got any reasons really to put forward for them?—Well, it is more a matter of business, I believe; it is a matter that all shipmasters do not agree about, but I think it is business.

3192. Do you know that there is any difference in the general efficiency of the lighting of the coast of

Lighting of Coast of United Kingdom: Efficiency of,

Scotland and Ireland, as compared with that of England and Wales?—Well, I believe they go in for more electricity in England, Sir; more electric lights; I think they use more oil in Scotland and Ireland than they do in England.

3193. But I am speaking from the sailor's point of view, from the master's point of view, from the captain's point of view; is there any complaint that the Irish and Scotch lights are not so good as the English lights?—No, Sir.

3194. None?—No complaints.

3195. Is there any general complaint amongst mariners that our coasts are not, on the whole, with just two or three exceptions you have mentioned, properly lighted?—Yes, we can say they are properly lighted.

3196. You think they are?—Yes, Sir.

3197. You have no complaints to make?—No, with the exception of those two or three lights.

3198. The Commission would like to know from a body which you represent, who are accustomed to be always going round the three Kingdoms, whether they have any serious complaints to make?—Well, I put it just as I have given them.

3199. You do not think there are any general complaints?—No, Sir.

3200. Now, with regard to the question of expenditure, is it not the case that all the expenditure of Departments, such as the Trinity House, has to be limited by the question of cost?—Well, I presume it will have to be limited; yes.

3201. The whole of the money that can be spent comes from the General Lighthouse Fund?—Yes.

3202. That itself is limited; and another thing, it is a tax either on the shipowners or the community as a whole, and you do not want to do more than is absolutely necessary?—But so far as I understand, it is in no way attenuated, the Lighthouse Fund; they have funds in hand.

3203. Yes, but they have practically reduced the dues by 20 per cent.?—The lighthouse dues.

3204. Other people have to be taken into consideration, as well as an extreme state of perfection. Do you understand what I mean?—I do, Sir.

3205. Have you ever heard of comparisons? I ask you, do you know that the French coasts are superior to our own?—Well, I have proved it by experience; we can all see the French lights much sooner than we can see our English lights.

3206. How long is it since you have been to sea?—It is seven years since I have retired now, Sir.

3207. Our lights have been improving. Supposing you were over at the French Cape Grisnez, would you see the Foreland lights?—We should, in clear weather, see them.

3208. As well?—I will not say as well as we see the French light from, say, the Foreland. I have seen Calais light and Grisnez light long before I have seen the Foreland lights. I consider the Foreland lights are too high. Many a time they are capped in fog.

3209. Grisnez is pretty high?—Not so high as the Foreland.

3210. It may not be, but it is a good high light. The question about your Central Board: you want to be able to ask a Minister in the House questions. Well, do you not think that Parliament has got a great deal too much to do now?—I daresay they have a good lot to do.

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3211. And it would be better to avoid as many questions as possible in Parliament?—Yes. Well, the fog-light; I would like to say something about the fog, the electric light. Mariners find we cannot see electric light the same distance that we can see an oil lamp.

Electric Light: Deprecated.

3212. In a fog?—The electric light does not seem to pierce the fog. The fog seems to absorb the rays in some way or another.

3213. Is that the general opinion amongst shipmasters?—Yes.

3214. You do not approve of the electric light?—I do not approve of the electric light; of course, it is a powerful light in clear weather, but when there is any haze at all, the haze absorbs the rays.

3215. (*Chairman.*) Is it not a fact that there are five times as many electric lights on the French coast as on the English coast?—I think there are.

3216. In spite of that, you think the French coast is better lighted?—I think it is better lighted; there is not so often a fog on the French coast.

3217. (*Admiral Henderson.*) There are varying degrees of penetration. It depends on the state of the atmosphere. This is my personal opinion—I do not know whether you will agree with me—that you do not want lights to show at too great a distance. It is no advantage to you seeing a light at twenty-five miles?—No, not at all; as long as you can see a light in sufficient time to avoid getting stranded, it is quite sufficient, I think.

3218. There is an exaggeration and an unnecessary increase in cost in making lights too powerful?—I consider there is, Sir.

3219. (*Sir Frank Adam.*) There is no use making a light show six miles off, when three is sufficient?—No use at all. They are dazzling, these electric lights; in fact, we cannot judge our distance unless we have other lights by which to take cross bearings.

United States: System of issuing aids to Mariners advocated.

3220. (*Mr. Ennis.*) I am particularly anxious to get the views of mariners with regard to foreign lights as compared with our own. You have given an opinion as regards the French lights; can you give us an opinion as regards the lights on the coast of America—the United States?—They are all splendid lights, as far as I can remember. They have a capital system of issuing aids to mariners, which we do not get here.

3221. What do you call "Aids to Mariners"?—Well, they issue pamphlets gratis—a book giving a diagram and a picture of each lighthouse and each beacon on the coast of America, in a large form, and you see at a glance which lighthouse it is. It is a splendid thing, in fact, I brought it to the notice of the Board of Trade three or four years ago.

3222. And you consider such a system would be advantageous to this country?—I think it would.

EIGHTH DAY.

Tuesday, 11th December 1906.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Sir Thomas W. P. Blomefield, Bart., C.B., called in; and examined.

Sir T. W. P. Blomefield, Bart., C.B.

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General Lighthouse Authorities:

3223. (*Chairman.*) You are the Secretary to the Financial Department of the Board of Trade?—I am the Assistant Secretary to the Finance Department.

3224. And you put in three tables?—Yes.

3225. Will you describe the contents of these tables?—Table "A" gives the annual expenditure of the General Lighthouse Authorities for the last seven years under each of the heads appearing in the annual Accounts of the General Lighthouse Fund, and the average annual expenditure*

3226. Table "B"?—Table "B" shows under each heading the percentage of cost based on the average expenditure of each Board for the last seven years.†

3227. And table "C"?—Table "C" gives particulars of the number and various particulars of the character of the lighthouses, etc., maintained by the three Boards.‡

3228. Do you consider that the materials provided by these tables are such as enable you to draw accurate conclusions in respect of the comparative cost of the three Boards?—I am afraid they are not.

Difficulty of comparing expenditure

3229. Why is that; will you give your reasons?—The geographical features of the coasts of the three countries vary very much, and necessitate very different kinds of seamarks; the numbers of such marks also differ. These remarks apply more specially to lighthouses and buoys and beacons, but even as regards lightvessels, in which there is not the same variation, there are differences which would make a comparison of little value. For instance, some of the Irish lightships require a crew of 12 men, whereas some of the Trinity House vessels require a complement of six only. Some of the vessels are fitted with sirens or other signalling apparatus which increase the cost, while others are not so fitted.

and administrative systems of,

3229a. There are also differences in the method of administration, are there not?—Yes, there are, Sir. In England the work is to a great extent decentralised by dividing the coast into eight districts, each with a superintendent, a separate establishment, and a storehouse; a steam tender being also attached to the district. In Scotland there are storehouses and steam tenders at three points only, Granton (two tenders), Oban, and Stromness. In Ireland the service is still more centralised, steam tenders being stationed at Kingstown (2), where there is a store, and Berehaven.

3230. How is the relief work of the three Authorities performed?—It is the practice of the Trinity House to perform most of the relief work, renewal of stores, etc., by means of these steam tenders, of which they have 11. It is impossible to apportion the cost of the work done by these vessels between the various services—*i.e.*, lighthouses, lightships, buoys and beacons, etc.—and the total cost is charged under the heading—Maintenance of Steam Vessels. In Scotland and Ireland, however, where there are only four and three tenders respectively, a considerable amount of relief work is done by boats employed under contract. The cost of these is charged under the various sub-heads to which they relate. There is also a difference of practice with regard to repairs. The Trinity House, who have a workshop at Blackwall, carry out by workmen sent from thence any work which cannot be done more economically and efficiently by the district staff or by contract locally. In Ireland repairs not sufficiently important to be put out to contract are for the most part executed by foremen on the staff of Engineer to the Commissioners of Irish Lights, but on occasion the work is done by tradesmen sent by Dublin firms. The Commissioners of Northern Lighthouses have a staff of district superintendents who are borne on the head office establishment, and who carry out all ordinary repairs on the spot with the assistance of one or more mechanics supplied by some good engineering firm.

3231. Do these differences of practice on the part of the three Boards also affect the comparison of the head office expenditure?—Yes, they do. The comparison can only be approximate in consequence of the differences in practice which I have referred to.

3232. Now do you think these differences of practice are justified by difference of circumstances in the case of the three Boards?—It is very difficult to give an answer to that question, Sir, I am afraid. I think the circumstances of the three countries do differ very much. In England, of course, the outline of the coast is less irregular than in Scotland and Ireland, and there are convenient harbours where steam vessels can be stationed and district storehouses established. In Scotland the seaboard, especially on the west coast, is very irregular.

3233. But, *primâ facie*, you would not be inclined to say that there were differences in the task set to each Lighthouse Authority?—Oh, I think so, certainly.

3234. Which might form some reason for the difference of practice adopted?—I think so, Sir. I do not think the Board of Trade have ever tried to impose one hard and fast set of conditions on all the Lighthouse Authorities; as long as the way in which they carried out their work was not extravagant the Board of Trade, I think, would wish to allow them a certain amount of discretion.

Expenditure

3235. Now would you kindly turn for a moment to table "B," please, which shows the ratio per cent. to the total average expenditure of the average expenditure on the various services. And will you look at that part of the table in which the percentages are given exclusive of new work?—Yes.

On Maintenance of Seamarks.

3236. The first five heads would, I suppose, cover, broadly speaking, what may be described as the expenses of maintenance?—I think so.

3237. Now if you add those five heads together, in the case of each of the three Authorities you get, I think, very nearly the same figure, do you not?—I have not added them, Sir.

3237a. For the Trinity House 79.2 per cent.?—Yes.

3238. For the Irish lights, 80.7 per cent?—Yes.

3239. And for the Northern Lighthouse Commissioners, 79.5 per cent.; is that right?—Yes.

3240. It would appear therefore that, if you take the average expense of maintenance under all heads together, there is a very remarkable resemblance in the figures which you reach?—Yes, there is.

3241. Do you consider that is merely coincidence?—I think it must be, more or less coincidence.

3242. You do not attribute any special significance to it?—No, not any special significance, I think.

3243. Well now, take the other three heads; head office expenses are approximately the same?—Yes.

* See Appendix A V. † See Appendix A VI. ‡ See Appendix A VII.

3244. There is a little more difference in the case of miscellaneous expenses?—Yes.

tems ncluded nder lis- ellaneous xpenses.

3245. And perhaps you would be good enough to explain to us what items are included under miscellaneous expenses?—Law charges, travelling, experiments, removal of wrecks, incidental expenses, which do not come under any other special head. These and other details have been inserted in the General Lighthouse Fund accounts for the last two years.

3246. Are these new accounts presented to Parliament?—Yes, Sir, Maintenance of Lighthouses. We have split that up into pay and allowances of staff, oil, coal, and other stores, repairs and renewals of lighthouses, rents, and incidental expenses. I have had a Table prepared, giving these details for the last fourteen years, seven years under the General Lighthouse Fund, and for seven years previous to that under the Mercantile Marine Fund, and I will hand that in.*

omparison f, for two eriods of even years.

3247. If you please. (*Tables D and E handed in.*).—I also hand in a Table of comparison of the average annual expenditure for the same periods of seven years—seven under the Mercantile Marine Fund and seven under the Lighthouse Fund, showing the percentages of increase and decrease.†

3248. I think those would be very useful to the Commission, but it would be desirable that we should have time to examine them, and possibly we may ask you to attend again at a later period, if there is any point arising out of these about which we desire information?—I am afraid it will hardly be possible for me to go into an explanation of the various differences. I think that must come from the Lighthouse Authorities. I do not think our records will enable me to go into details.

xplanation f increase , on uperannua- on.

3249. There is probably one point in connection with superannuation allowances on which you could give us some light, however. If you turn to Table A, it appears that the superannuation allowances in the case of the Irish Lights rise from the sum of £4,899 in the year 1900 to £7,946 in the year 1906?—Yes, Sir, that is so.

3250. That is an enormous rise compared with any increase shown in the figures of Trinity House, or of the Northern Lights. Can you explain that?—Yes, that is so. The increase of £3,047 in the amount of Irish pensions paid in 1905-6, as compared with 1899-1900, arises from the fact that 59 persons came on the list during that period, as against 25 pensioners who died. There has been a very large amount of new pensions.

3251. That is purely accidental?—That is purely accidental.

3252. It arises from the automatic operation of the system?—Yes, Sir. This is remarkable, but the only explanation is that it arises from the system. It includes a pension of £600 a year granted to the Engineer of the Irish Board.

3253. Is that pension still being paid?—That is still being paid; and the accountant £400. Those are two large pensions amounting to £1,000 a year.

3254. Between 1900 and 1902, I notice the increase was nearly £2,000. It was over £1,500 at all events?—Yes.

3255. Was it during those two years that those new pensions became payable for the first time?—I am afraid I have not got that particular, Sir. I can tell the Commission the number of pensions under the various headings, if they wish to know it, in the three establishments.

3256. Yes, I think it would be desirable that we should have them?—The Trinity House, official department, the amount of pensions is £1,642. The lighthouse service, light-keepers—there are 63—total pensions £3,445; lightvessel service, 79 masters, 8 mates, and 41 others, a total of £6,958; steam vessel service, there is one mate, four engineers, and 39 others, with a total of £2,165; district storehouses, 6 superintendents, 1 clerk, and 17 others, total £2,189; then there is a number of widows of light-keepers, lightvesselmen, steam-vessel men, and districts storehouse men, amounting to £979.

3257. Do widows of the lighthouse keepers get pensions?—They used to, many years ago, but these pensions are dying out.

3258. That is no longer permissible?—No, unless the husband is killed in the service.

3259. Unless the husband is killed in the service?—If the husband is killed the widow gets a pension. Then the Commissioners of Irish Lights: head office, £1,450; light-keepers—62 light-keepers—pensions, £3,069; lightships, 8 masters, 2 mates, and other members of the crew, £1,907; steamers and stores, £1,377; and widows and children, £150. And the Commissioners of Northern Lighthouses: head office pensions, £655, including £533 to the Secretary; light-keepers—60 light-keepers—£3,198; steam tender, buoy and boat service, £1,087. The Engineer of the Northern Lights is paid by fees, and is not entitled to a pension. (*Table handed in.*)

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3260. Can you give us a comparison between the head office expenses of the Northern Lights for the seven years prior to 1900, as compared with the expenses of the head office subsequent to that date?—That is shown in the Tables.

Northern Lighthouse Board: Change in method of keeping accounts of,

3261. It may be shown in the Tables you have just handed to me, but I have not had time to look through them. Perhaps you could give the result to me?—There is a large increase in the latter period, and that arises from the fact that prior to the first year of this later period the fees paid to the Engineer were charged partly to new works and partly to miscellaneous expenses instead of to the head office.

3262. It was a difference in the method of keeping accounts?—That was so, Sir; in the later period they are charged to head office expenses. You will see there is a reduction in the miscellaneous expenses.

3263. I see, yes?—They came under the heading "miscellaneous expenses" as incidental expenses.

3264. Are there not other special points in the Tables that you have submitted to us that you wish to call our attention to?—I do not think there is anything special.

Board of Trade Control over General Lighthouse Authorities: Nature of,

3265. Let us pass to the subject of the control of the Board of Trade. Mr. Pelham, I think, has already given evidence on this subject, and referred to the various sections that deal with the powers of the Board, but perhaps for clearness sake you will epitomise them?—Section 634 of the Merchant Shipping Act 1894 provides that the superintendence and management of the lighting and marking of the coasts of the United Kingdom shall be vested in the three General Lighthouse Authorities. Section 659 provides that the establishments to be maintained by the Authorities and the sums to be paid in respect of those establishments shall be fixed by Order in Council. Section 660 as amended by the Merchant Shipping (Mercantile Marine Fund) Act 1898 provides that no expense of a General Lighthouse Authority shall be paid out of the General Lighthouse Fund unless it has been allowed as part of the establishment expenses referred to above, or an estimate or account thereof has been approved by the Board of Trade. The Section further provides that for the purpose of obtaining such approval the Authorities shall submit estimates of all expenses to be incurred by the Authority, other than authorised establishment expenses or expenses arising under a sudden emergency, to the Board of Trade, who may approve them either with or without modification. Section 664 provides that the General Lighthouse Authorities shall account to the Board of Trade for their receipts from light dues and for their expenditure in such form at such times, and with such details, etc., as the Board of Trade require, and that they shall permit all their books of account to be inspected and examined by persons appointed by the Board of Trade. Section 665 provides that a General Lighthouse Authority may with the sanction of the Board of Trade grant superannuation or compensation allowances to their staff provided that no such allowance, etc., shall exceed the proportion of salary which may be granted to a person in the Civil Service.

3266. The general upshot is that the responsibility for lighting and marking the coast is imposed on the General Lighthouse Authorities, and not on the Board of Trade?—That is so, Sir.

3267. The duty of the Board of Trade is to exercise a financial control over the expenditure of the three Boards?—Yes.

3268. And to see that their administration is conducted with a proper regard to economy?—Yes.

Method of exercising.

3269. Will you describe how the control of the Board of Trade is exercised?—Towards the end of the year the General Lighthouse Authorities submit estimates of the sums that they will require for the following

* See Appendix A VIII. † See Appendix A IX.

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financial year. The estimates are prepared in considerable detail, and contain a comparison with those of the previous year, with an explanation of any important variation. The estimates are very carefully examined, and further information is asked for where necessary. As regards the portion of the estimates relating to new works, Mr. Pelham has described the procedure adopted. A preliminary meeting between the representatives of the General Lighthouse Authorities and the Board of Trade is held at the Board of Trade in November or December. At this meeting, over which the President of the Board of Trade usually presides, the proposed new works are discussed. If the President is not satisfied that any new work should be sanctioned it is struck out, and the revised estimates are discussed at a subsequent meeting with the Advisory Committee in the following January or February, after which the President comes to a final decision as to the amount that should be sanctioned for new works. Mr. Pelham handed in, I think, some tables showing the amounts applied for and sanctioned and the amounts expended for new works for a series of years.

3270. Where does the principal difficulty arise with regard to maintenance, apart from new works?—The principal difficulty arises with regard to special repairs to lighthouses and light and steam vessels, the cost of which necessarily varies very much from year to year, and as regards the estimates for these works a provisional sanction only is given. When the estimates have been examined and the necessary explanations have been given, and adjustments made, the approval of the Board is signified subject to the following reservation:—"On the understanding that no increase of salary, wages, or allowances shall be made nor any new works or extensive repairs undertaken, although included in the estimates, without the special sanction of this Board." Before commencing any new works or extensive repairs, detailed estimates are submitted to the Board of Trade for approval, and when the approval has been given and tenders have been invited, the tenders received are submitted to the Board of Trade, with a statement showing which of them the Authority proposes to accept, and if it is not the lowest tender, the reasons for selecting it. No tender of any importance is accepted without the sanction of the Board of Trade. Tenders for oil, coals, and other stores are submitted for approval in the same way.

With regard to accounts.

3270a. Then, with regard to accounts?—The accounts are rendered every quarter. They are carefully compared with the estimates and explanations of any substantial deviation therefrom are obtained. The accounts are also examined with a view to seeing that all the expenditure is properly authorised and vouched for, and that the payments under contracts are such as have been approved.

3271. Have the accounts to be submitted to the Auditor-General?—Yes, Sir. Under Section 679 of the Merchant Shipping Act, 1894, and Section 1 (c) of the Merchant Shipping (Mercantile Marine Fund) Act, 1898, the accounts are to be deemed public accounts within the meaning of Section 33 of the Exchequer and Audit Department Act, 1866, and are to be examined and audited accordingly, and they are to be laid before Parliament annually.

Value of,

3272. Can you express any opinion as to the value of the control of the Board of Trade in securing economy?—I think there can be no doubt that the control of the Board of Trade is of great value in securing economy in the administration of the lighthouse service. Perhaps its most important effect is in preventing ill-considered or extravagant schemes from being put forward. The fact that a Lighthouse Authority must be prepared to justify any expenditure for which sanction is sought must tend to secure careful administration.

3273. It was represented to us in evidence by Mr. Norman Hill that the control of the Board of Trade amounted to little more than an audit of accounts; you do not agree with that view?—I do not agree with that, Sir, at all.

Expenditure: Contrast between English and Scotch systems of,

3274. (*Colonel Herbert.*) Looking at the general expenditure, would you say that the English system and the Scotch system offer the most marked contrast?—Do you mean the way in which they carry out their works?

3275. The way in which they are generally administered. I mean in this way, that the English system appears to be one of maintaining a considerable permanent staff and doing the work themselves, and that of the Scotch Lights is of keeping their permanent staff to the lowest limits, and putting everything out to contract?—Yes; I think probably for what the Trinity House have to do it may be very economical for them to have the workshop. They have a very large number of buoys which are constantly wanting repair, and those buoys they repair in their workshops. They have a much larger number of buoys than either of the other Authorities, but it is extremely difficult to say which is the most economical system. I have done my best to compare them.

3276. But there comes out of that Trinity House system large non-effective cost on staff pensions and so forth; the same thing appears in Ireland?—I do not think it is more so than in Ireland.

3277. It is the same in Ireland; the large, or relatively large, permanent establishment makes a large number of persons for pension; larger than in Scotland?—The mechanics who go down from the Blackwall workshops are not pensionable men.

3278. Certain classes of them are, I think?—No, none.

3279. Not all of them are; some of them are?—None are pensionable.

3280. We had it in evidence that the present system in the Trinity House with regard to the Engineer was adopted about 1856. Previous to that it was similar to the existing Scotch system; do you know that?—I have not gone into that.

3281. What I was driving at was, whether that had created an increase in the permanent staff generally, and consequently an increase in the non-effective list?—The Engineer of the Trinity House is entitled to a pension, and the Engineer of the Scotch Board is not.

3282. But would not the introduction of a system of a permanent official, instead of an official who is only paid by fees, lead to the creation of a larger permanent staff? Would not the Engineer naturally collect round him a number of people?—It might, but on the other hand, it has been suggested that the payment by fees might tend to induce the Engineer to undertake works which might not be absolutely necessary.

3283. Yes, I was coming to that, to see whether you could give any sort of comparison as to the relative advantages of the two systems; whether in the end one might be cheaper, although increasing the cost in certain respects.

3284. (*Chairman.*) As a matter of fact, I think your table "B" shows that the superannuation allowances of the Trinity House are less in proportion than those of the Scotch Lights?—Yes.

3285. That is the fact, is it not?—That is the fact.

(*Admiral Henderson.*) I hardly think the percentage (Table B) is a fair comparison, because it is not a comparison really; it depends very much upon numbers, and a percentage for superannuation allowances on these depends very much upon the staff.

3286. (*Colonel Herbert.*) I say the figures, not the percentages, attracted my attention, one bein £4,800, and the other more than four times that amount?—With regard to the Scotch pensions, up to comparatively recent times some of their men were not entitled to pensions; the crews of their steamers, and the crew of their lightvessel. They were not entitled to pension, but some years ago they applied to have pensions granted to them, and that was allowed.

3287. Now, with regard to your functions as a controlling, and, I presume, as an auditing, authority?—We audit as well. *Accounts*:

3288. Do you think it would facilitate your work if there were some assimilation in the systems of the three Authorities?—It might to a certain extent, Sir; I do not think it would make any very great difference.

3289. I understand that the accounts that are submitted to you are upon forms that you give?—Yes. Form of, submitted to Board of Trade.

3290. But it has come out, I think, in evidence that those forms have to be specially filled up; they do not exactly fit themselves into the system in which the accounts are kept?—There may have to be some variations.

3291. They have to be rather arranged for the benefit of the Board of Trade?—Yes.

3292. Does that strike you as a sound system, or

would it not be better to have a system in which all the different parts would fit into one another?—The accounts of the General Lighthouse Fund were settled by the Treasury Officer of Accounts some years ago, but I do not think there has been any inconvenience caused by the form of the accounts.

3293. To what degree does the Treasury intervene?—The Treasury has nothing to do with the General Lighthouse Fund, but when the light dues were carried to the Mercantile Marine Fund and there was a grant in aid, the accounts had to be presented to Parliament as part of the Civil Service appropriation accounts, and then the Treasury settled the form of accounts.

3294. So that these forms are survivals?—These are survivals, yes.

3295. It has never then been seriously considered to establish a uniform system of accounting?—I think the system of accounting is uniform, Sir. Of course, you have to have different accounts for the workshops at Blackwall, but apart from that I think the system is the same for all.

3296. In fact, you do not think that your work suffers by reason of the different systems of administration?—I do not think so, Sir; no, I do not think it does.

3297. (*Mr. Ennis.*) You speak in your evidence of the decentralisation of the system of Trinity House as compared with the system of the Northern Lighthouse Board and of the still more centralised system of the Irish Lights Board?—Yes.

3298. You regard the decentralised system as superior to the others, I understand?—I do not know that I do that, Sir; it may be more satisfactory for the circumstances of England, but I do not know that it would be for the circumstances of Scotland and Ireland; they are so very different.

lackwall Vorkshops:

3299. With regard to the workshops at Blackwall, a question has been asked you on that subject, am I not right in saying that the Trinity House repair machinery of their own steamers at Blackwall?—They may do to some extent, Sir, not always.

3300. Because I think we have been led to believe that when you get outside of a certain radius the efficiency of the Blackwall workshop ceases, that the Trinity House find it much more economical to employ contract labour or to have their buoys and so forth repaired by private firms when they get a certain distance from the Blackwall workshops?—I am not in a position to answer that.

3301. That was the impression conveyed to my mind, that the Blackwall workshops, whilst admirably efficient for the repairs of steamer machinery and of the buoys and beacons within a certain radius of the shops, that would not apply to those repairs in the more remote districts of Trinity House work?—I have not gone into that particular point; I have no doubt I can get information on it.

perannua-n:

3302. With regard to the head office expenses, I notice here in Table "B" that both in the table including new works and in the table excluding new works that the Irish Lights percentage of head office expenses is considerably less in proportion to cost of administration than either the Trinity House or the Commissioners of Northern Lighthouses although their superannuations are considerably more? The percentage in the second page here is given for the Irish Lights head office expenses as 8.5, against 9.9 for the Northern Lighthouses and 9.3 for the Trinity House?—Yes, that is the ratio of total expenditure. I do not know that it really shows very much; I am afraid these comparisons are not of much real value.

3303. They may not show, but still the figures that our Chairman put with regard to the cost of maintenance so nearly tie, it follows that the cost of the three remaining items in the item head office expenses, miscellaneous expenses and superannuation allowances nearly tie also when taken together?—Yes.

3304. But yet the administration expenses in the case of the Irish Lights are nearly 1½ per cent. less than Scotland, and nearly 1 per cent. less than England, although their superannuation allowances are considerably higher?—That, I think, is accidental.

3305. The superannuation allowances?—The superannuation allowance.

3305a. What I wanted to ask you with regard to superannuation allowances was this: You have told us that a sum of £1,000 is accounted for by the superannuation allowances granted to the Engineer and the Accountant?—Yes.

3306. Can you tell us if the age for pension in the three different services varies?—No, it does not vary.

Age for,

3307. The age for pension is the same?—It is the same in all; it is the Civil Service scale; they have to comply with the Civil Service rules.

3308. I understood that 60 was the age for superannuation?—A man may be pensioned off at 60, or he may go at 60 of his own accord; otherwise he may stay on till he is 65; he must go at the age of 65.

3309. Quite so. I think we have had it in evidence that the system of the Irish Lights Commissioners is to pension their people at 60. Do you know does that vary from the practice of the other Boards—I have never noticed any difference in the practice.

3310. I mean if the Irish Lights Commissioners pensioned off their men at 60, and the Trinity House and the Northern Lights Commissioners allowed their men to remain until the age of 65, it might make a difference to the superannuation?—It would.

General Lighthouse Authorities: Difficulty of comparing,

3311. With regard to Table "C," you have told us that it is always difficult to make anything like an adequate comparison, the conditions vary so much with regard to the lighthouses, the type of light-vessels, and so on in the various countries?—Yes, they vary very much.

3312. Would it be possible to make an approximate comparison based upon the candlepower of the lights shown in the lighthouses of the different coasts, the number of rock and island lighthouses as compared with shore stations?—That would be the best way of making it.

3313-4. And the total number of staff in the lighthouse service, the numbers of the staff, the total staff?—I think the only possible way of making a comparison would be to take individual lighthouses of a certain type and work out the cost. I think the Commissioners have already asked for figures of that kind.

3315. It would be desirable that we should be able to make some sort of comparison of that kind?—I think that is the only possible way of making a comparison.

3316. Of course, I assume rock and island lighthouses are more costly to maintain than shore stations?—Yes, they are.

3317. And that would be a factor in the question?—Yes.

3318. And then the number of crew on the lightships would make a difference?—That makes a difference.

3319. The total number of crews on lightships under the control of one Authority and the same number under the control of another would afford some basis of comparison?—It would afford some basis, but not a very substantial basis of comparison. There are still differences. You would have to be very careful as to the cost of relieving. Trinity House very largely relieve by their own vessels; in Scotland and Ireland a good deal of the relief is done by hired boats, and you would have to make allowances for that. It is almost impossible to apportion the cost of the steamers amongst the various services.

3320. And also we have had it in evidence that the Trinity House relieve their rock lighthouses and lightships once a month only, whereas the Irish Lights Commissioners relieve theirs three times every month, which makes a difference also?—It is very difficult to compare. I have done my best to make out comparisons, and I have not been able to do so; it is extremely difficult.

Responsibility of,

3321-2. You also refer in the second portion of your evidence to the fact "that the responsibility for lighting and marking the coasts is imposed upon the General Lighthouse Authorities and not upon the Board of Trade. The duty of the latter is to exercise a financial control over the expenditure of the three Boards, and to see that their administration is conducted with a proper regard to economy"?—Yes, Sir.

3323. Does not the onus rest upon the Board of Trade also with regard to efficiency, or do the Board of Trade disclaim any responsibility in regard to efficiency?—I think the responsibility for that rests with the General Lighthouse Authorities.

3324. And not with the Board of Trade?—And not with the Board of Trade.

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3325. But, still, as a matter of opinion, I presume you agree with the view of Mr. Pelham, stated in reply to a question I asked him, that efficiency is the primary consideration in this question?—Certainly, I agree entirely with that.

3326. But then you say that the Board of Trade take no responsibility for efficiency; they simply take responsibility for economy?—I think so, Sir. You see the Act expressly places the responsibility for lighting the coast on the General Lighthouse Authorities.

3327. Quite so; but with regard to initiative, do I understand that the Board of Trade never takes the initiative with regard to it?—We have no power of initiative at all.

3328. But in practice has it never been done?—I think the Board of Trade have made representations to the Lighthouse Authorities.

Irish Lights Board: Unbusiness-like methods of

3329. It will be within your knowledge, I think, that Mr. Pelham handed in here with regard to the Irish Lights a number of cases stated by the Board of Trade to point to inefficient administration?—In Ireland?

3330. In Ireland?—Yes, Sir.

3331. Mr. Pelham when handing in that return said he did not regard any of the individual cases contained in that return as being of grave importance, but a number of them taken together had a tendency to show general loose administration on the part of the Irish Board?—Yes.

3332. We have had that return before us, but we have also had evidence with regard to a couple of cases not contained in that return, which, to my mind at least, seemed of considerably greater magnitude than the cases that are contained in the return. One of these cases is a case in which complaint has been made that the Irish Lights Commissioners absolutely declined to consider the establishment of a fog-signal station on Mizen Head?—Yes, Sir.

3333. And we have also had evidence that the Irish Lights Commissioners have that fog-signal station in their estimates for the present year, but representatives of the Irish Lights allege that they are still of opinion that that station is not desirable, and that they are practically placing it in their estimates at the request and by the compulsion of the Board of Trade?—Yes. I am afraid this is rather more a question for Mr. Pelham than for me; it is rather more a question of administration than finance.

3334. Shall we have the opportunity of seeing Mr. Pelham again?—I have no doubt he would be willing to appear before the Commission.

3335. Well, in that event, I assume I should also ask Mr. Pelham a question with regard to the second case, in which it has been stated in evidence here that the Irish Lights Commissioners defied the Board of Trade with regard to the Fastnet Lighthouse?—I think that is for Mr. Pelham also.

3336. It was stated in evidence here before us that the Board of Trade informed the Irish Lights Commissioners that the position was then such that they would bring the whole matter before Parliament unless the Irish Lights Commissioners gave way?—Mr. Pelham will deal with that.

3337. He will be able to give us information on those points, because they are undoubtedly important points?—Certainly.

New Works: Conference as to,

3338. You speak also as to the estimates for new works. There is a preliminary meeting of representatives of the General Lighthouse Authorities and the Board of Trade; who are the representatives who represent the General Lighthouse Authorities at that meeting?—Some of the Commissioners are present, some of the Elder Brethren of the Trinity House with the Engineer and their Secretary, some of the Northern Lights Commissioners with their Secretary and their Engineer, and the same with the Irish Lights Commissioners.

3339. There is a limited number, a committee, as it were of each Board?—Yes, Sir.

3340. Accompanied by their officers; the Engineers and Secretaries meet on this occasion?—They do, Sir.

3341. And the sanction or refusal rests in the hands of the President only?—Eventually it does, Sir.

3342. Are you in a position to give us any information as to whether the Board of Trade make inquiry as to the expenditure upon the lighthouse services of foreign nations?—I am not aware that we have done it.

3343. Or as to how that expenditure would compare with the expenditure in the British Isles?—No such inquiries have been made since I have been connected with the work.

Board of Trade Control over Lighthouse Authorities

3344. (*Admiral Henderson.*) With regard to Section 659 of the Merchant Shipping Act, 1894, have any special Orders in Council been issued lately?—Yes, within the last few years.

3345. That is to say, that an alteration has taken place in the establishments?—Yes.

Powers of inspection.

3346. With regard to Section 664, how often do you inspect the books of these various Authorities?—Very rarely we have to inspect the books, Sir, because the accounts are rendered to us in great detail.

3347. You practically do not find it necessary to inspect at all?—Very rarely, unless some special question arises.

3348. That is to say, it is an audit inspection and not a business inspection? What I mean is, that your inspection is an inspection for the sake of accounts, and not for efficiency of administration?—Yes, Sir; we do not inspect the books for the sake of efficient administration. The accounts are rendered in such detail that it is not necessary to inspect the books.

3349. No, but supposing you thought that money was being wasted by some system, and that some of their arrangements might not be up to the mark, we will say, would your inspection be to that end, do you attempt to interfere in any administrative sense with the Boards?—Yes, we should interfere if we thought their administration was too expensive; if we had reason to think that their administration cost too much, then we should interfere.

3350. But is it a point that you really go into?—Yes, if it appears that there is any extravagance. If our attention is directed to anything of the kind we should certainly inquire.

3351. In any concern the accounts may appear perfect, and may be perfect in every shape, but it does not follow that the system pursued, the business arrangements, are sound?

3352. (*Chairman.*) For example, supposing one of the Lighthouse Boards was to propose a large expenditure on the repair of one of their steam vessels, would you, or would you not, go into the question of the necessity for such repair?—We should certainly go into the necessity for the expenditure; if we had any reason to think it was extravagant, we should ask for further information, and we should go into the whole question, certainly.

3352a. (*Admiral Hendeson.*) But, I mean, to go a little further than that. For instance, take the workshops of Trinity House?—Yes, Sir.

3353. Do you attempt to inquire into the efficiency of the system that is pursued there, and what are its economical results?—I do not think that we have ever done that; not since my time.

Consideration of estimates for New Works.

3354. You say the estimates are prepared in considerable detail, and contain a comparison with those of the previous year, with an explanation of any increase. I think we are to have copies of the estimates as you get them from the Boards?—Yes, I think you are.

3355. Do the Advisory Committee discuss any proposals that are struck out by the preliminary meeting?—No, Sir.

3356. They do not?—No.

3357. Their opportunity is only that of considering proposals that are approved by the Board of Trade?—They have, of course, power to make suggestions themselves.

3358. (*Chairman.*) It is the case, is it not, that the Board of Trade very often decides to keep an item on the list for submission to the Advisory Committee, in order that they may have the opinion of the Advisory Committee upon it?—Yes, that is very often the case. The Board have not made up their minds whether certain expenditure is desirable or not, and wish to hear the views of the Advisory Committee, before coming to a decision.

Supervision of account

3359. (*Admiral Henderson.*) With regard to the accounts, I think you said, "The accounts are rendered every quarter. They are carefully compared with the estimates, and explanations of any substantial devia-

tion therefrom are obtained. The accounts are also examined with a view of seeing that all the expenditure is properly authorised and vouched for, and that the payments under contracts are such as have been approved." That is to say, this is really a matter of form, the Boards themselves will not deviate from the estimates which have been approved?—The audit is to see that the proper authority has been obtained and the proper vouchers furnished.

3360. It is a matter of account entirely?—That is a matter of account.

3361. You further say, "Perhaps its most important effect is in preventing ill-considered or extravagant schemes from being put forward." You mean that that applies to new works?—It applies to everything, Sir.

3362. And not to administration?—It applies to everything; it applies to increase of salary, for instance.

3363. Or to the efficiency of the administration?—Well, it applies to any expenditure; any proposal for expenditure.

3364. In examining the estimates, does the Board of Trade have sufficient evidence at its disposal to be able efficiently to judge of the economical aspects of the administration of the three Boards? I am speaking of the administration. I am not speaking of new works, or any particular repairs to steamers?—I think we have very good opportunities of judging of the administration, Sir; the efficiency of administration.

3365. Has any examination of the various systems towards this end ever been made; any overhaul or examination of the systems of the three Boards towards the economical aspects of their administration?—I do not think we have ever had any special examination.

3366. All three have a different system of management; has any attempt ever been made to make each one apply the most efficient and economical methods of the others, so as to get the best results possible?—I do not think any such general attempt has been made; we do make suggestions from time to time.

3367. I should cite as instances the question of attendance to lightvessels and the rock lighthouses; there must be one best form of doing it, varied by the locality, of course?—I do not think there would be one best form under all circumstances.

3368. Varied by the locality?—I think it depends very much upon the particular circumstances. What would be suitable in England, probably would not be suitable in Scotland or Ireland.

3369. There is another case in point, and that is the Blackwall workshops; their value as a whole to the Trinity House?—I do not think we have ever had any special inquiry into that, Sir.

3370. And as to the question of annual repairs as well; annual repairs either to vessels or lighthouses?—I do not think we have ever had any special inquiry into that, but I do not think that such inquiries have been necessary.

3371. Overhaul of tenders and comparison of accounts with estimates will not give you this information?—I think we have very good opportunities of getting a general idea as to the methods of administration of the three Boards, and forming an opinion as to whether they are satisfactory.

General Lighthouse Fund: Possibility of publishing account of, in greater detail.

3372. We have evidence that a good deal of the objection on the part of shipowners is that no detailed account of expenditure is published. Now, could this be done?—It depends what they mean by a detailed account, Sir. As I have just said, we have given more details in the last two years than we have before, but it would be difficult to go into extreme detail, to give the cost of each lighthouse or each lightvessel.

3373. What the witness stated was, that in the Return of Expenditure which is printed by order of the House of Commons there is very little information. Well, I am bound to agree with him, and I want to know whether it would be possible to give very detailed information, so that any suspicions which naturally arise in the minds of the people who pay the light dues might be eliminated?—Oh, it is possible to give the accounts in any amount of detail, Sir; of course, it would require an increase of staff, and it would cost money, but it is quite possible; we have got the information.

3374. Would it not be possible to let the Boards submit their estimates in a form which could be published?—I think so, Sir. I think that might be done, but I think the shipowners want more than details of accounts; I think they want details, for instance, of the number of days the steamers are employed, and that sort of thing, which would not come into the accounts at all. We have never had any definite statement of what the shipowners do wish. They have constantly said they want the accounts published in greater detail, but they have never told us what details they want. We should be quite prepared to consider any application from them, I am sure.

General Lighthouse Authorities: Difficulty of comparing systems and expenditure of,

3375. Now, I pass to a question Mr. Ennis was asking you about. I ask from a business point of view, is not really too much made of the differences of position of lighthouses, lightships, beacons, and everything? Every Board, whenever you ask any questions about expenses, puts this argument forward, and I want to know whether you think there is not too much made of it?—I have done my utmost for some time past to get some basis of comparison, and I have not been able to do it, Sir.

3376. I have a further question: Could a comparison be made of lights and lightvessels by groups, because it has been done in one case by the Scotch Board, I think it was? In one case evidence was given by groups?—I think that is the only way in which you could get any comparison, by taking a lightvessel, or two or three lightvessels of the same kind, or two or three lighthouses of the same kind, and comparing those; I do not think any general comparison is possible.

3377. In regard to Table "A," the maintenance of lighthouses and lightvessels includes repairs and salaries, does it not?—Yes, Sir.

3378. Now, where does the cost of the Blackwall Works come in in the Trinity House Account?—The cost of the Blackwall workshop is split up over the whole of the other expenditure; it is apportioned out.

3379. To the whole of the service?—The whole of the service.

3380. Now, in Table "C," is the cost of Gibraltar and the other Authorities' lighthouses included in the Trinity House return? You have included them amongst the numbers, but is the cost of their maintenance included here?—Yes, Sir.

3381. It is included?—Yes.

3382. Nothing that is exterior to the General Lighthouse Fund?—Nothing; nothing at all that is not maintained out of the General Lighthouse Fund.

3383. Now, if you look at the cost of the lighthouses—I have taken the year 1906 by way of comparison—I see that, if you take the amount of the cost of the lighthouses as a whole, the Trinity House came to £472, the Irish to £462, and the Scotch to £393 per annum per light; and I ask, in view of the fact that the excess of numbers of island stations on the Irish and Scotch coasts qualify the excess of rock stations on the coast of England and Wales—in the case of Ireland it is only two more—and considering the greater difficulty of communication and supply in many parts of Ireland and Scotland, do you not think that some comparison could be made, and that this shows strongly in favour of the Scotch Board, especially considering that they have 31 sirens and explosive fog-signals, against 29 of the Trinity House? I have neglected the smaller bells and things of that sort, as not being necessarily relevant to the question?—I am sure, Sir, it would not be a satisfactory comparison.

3384. I see in the total cost there is a difference of £10,393 between the Trinity House and the Scotch Board, and £10,712 between the Trinity House and the Irish Board. That is part of that question?—Yes.

3385. Well, the difference in the number of lighthouses they maintain is not very great. If you compare this list of lighthouses and other seamarks, except in the case of buoys—Trinity House maintains many more buoys—it is not so very great when the lighthouses abroad are deducted, and it does not appear to me that it is sufficient to account for the great difference in cost, because with the large number

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of island lights which the Scotch and Irish Boards have, and lights in exposed situations, it appears to me that the cost of their maintenance should be comparatively greater than the cost of those of the Trinity House, which are close to the lines of railway communications?—The Scotch Board have only one lightvessel.

3386. I am coming to that presently; and in considering this question you must bear in mind that a good deal of the relief work in Scotland and Ireland is done by boats, which presumably is included in their costs for maintenance, but not in those of the Trinity House. In this return the cost of all the maintenance that is carried out by the steam and sailing vessels appears under the head of maintenance?—Yes.

3387. But does the whole of these communications by boats appear under the head of maintenance of steam and sailing vessels, or does it appear under maintenance of lighthouses?—It appears under maintenance of lighthouses.

3388. Which shows that there is a greater proportionate cost put to the Scottish and Irish lighthouses than there is to the Trinity House?—Yes, there is, Sir.

3389. There is a considerable variation also in regard to the lightvessels. The single Scotch one cost (these are the figures for 1906) £1,303, while the 52 English average £1,405 and the 11 Irish £1,756 each, and some of the Trinity House and Irish vessels are spare and not in position. Presumably, the costs of the two lightvessels maintained by the Trinity House are not included in the amounts given; that is for the Admiralty. I do not know whether they are or not?—They would not be included.

3390. They would not be. If so, the average for the Trinity House would be £1,461?—Yes.

3391. The cost of the 13 steam sirens of the Trinity House would be in their favour against the two of the Irish Board. Now, do you not think there is some considerable variation there?—This is only for one year, Sir; the cost for one year.

3392. Yes; but I have taken one year, and that the last year, purposely, because one does not know what the additions are that have been put in when a period of seven years is taken. £625,564 has meanwhile been spent on new works, plus an unknown sum for other additions, included in cost of maintenance. I do not think a period is of any value under present system of account.

(*Chairman.*) Is it not a fact that in 1905 the cost of the lightvessel of the Northern Lights Commissioners was £2,105, as against £1,303 in 1906?—Yes.

3393. (*Admiral Henderson.*) I am coming to some of these points directly, because there is a very large number of discrepancies here which certainly want explaining. One year for the single Scottish lightvessel, without a spare one to take her place, when under refit, does not afford a good comparison with the others. I will therefore take the septennial average in her case, which is £1,419. As to the buoys and beacons, the average cost of Trinity House—I am going to the nearest pound—is £9½, the Irish £12¾, the Scotch £8½. Does not that also show much in favour of the Scotch Board, considering they have 23 gas beacons, against none of the Trinity House and two of the Irish Board, which is a set-off against the 25 additional gas buoys of the Trinity House?—There again—it is one year's comparison. I do not think it is reliable. You must take a longer period than one year to get any proper comparison.

3394. You stated just now that the Trinity House had many more buoys than the others, but is it not a fact that many of the Trinity House buoys are not cleaned and repaired at Blackwall?—I am afraid I could not say off-hand.

3395. Again, as to the steam vessels, the cost of which is £44,491, £14,696, and £18,700 respectively, giving an excess to the Trinity House for the average work done on the mean of the other two as £27,793. Do you think the Trinity House really get a return on the economical side for this expenditure, notwithstanding the number of lightvessels they have?—I have no reason to think they do not, Sir.

3396. The percentage in Table B is given on the total expenditure for each Board. Is it possible to make the comparison this way? It shows, for instance, that the district storehouse system of the Trinity House and Irish Board is expensive compared to the Scotch Board, but on the larger sum there should be a diminution of the cost of the administrative services. That is to say that where you have larger sums to deal with, as the Trinity House has over the other Boards, there naturally should follow a considerable reduction in the cost of administrative service towards efficiency, because you can do a big business at a much cheaper rate than you can do a small one?—With regard to the storehouses, of course the Scotch have only one small storehouse.

3397. I know; but I am speaking of this return in its general form. I am analysing this expenditure, and trying to find out whether there are not discrepancies that want explanation?—I am afraid it is not possible to make comparisons of that kind. It is very difficult to make comparisons in that way, Sir.

3398. The Trinity House cost of steam vessels rose £11,000 in 1901; can you give any reason for that?—I am afraid I cannot give any detail.

3399. But why did the cost of maintenance of steam and sailing vessels rise in 1901 £11,000?—Probably because there were several brought in for repairs; large repairs were required. You see those vessels come in for repair at different times.

3400. Has the cost of any new steam vessels been put into this maintenance form?—For repairs?

3401. No, for any of the new vessels?—New vessels would come into new works, Sir.

3402. Now, cost of storehouses fell £3,500 in 1906; that is for the Trinity House; it has fallen from £13,186 in 1905 to £9,622 now. Can you give me any reason for that great fall?—I am afraid I cannot. I cannot go into the details. There are reasons for the decrease, and the reasons should, I suggest, be obtained from the Lighthouse Authorities.

3403. The Trinity House cost of maintaining lightvessels for 1900 was £71,020; in 1901 it was £67,726. Then, again, there was a great variation in 1905. It rose from £77,623 in 1904 to £82,361 in 1905, and then fell again to £73,060 in 1906?—This, of course, depends very much on the number of lightvessels that come in for repair. The lightvessels are brought in for repairs at intervals of so many years, and the cost of repairs depends in each year upon how many come forward for repair or refitting.

3404. Do you not think it would be good business to try to arrange for the vessels coming in so that the cost of their repairs was fairly equalised over a term of years, instead of having these expansions and contractions?—Well, I do not know that there would be any great advantage in doing so, Sir.

3405. The maintenance of buoys and beacons has in each case fallen in 1906, and there was an increase of the Trinity House head office expenses in 1903. Do you know any reasons for that? If you take the buoys and beacons in every one of the three Boards, they have fallen very considerably in 1906?—I cannot go into the detailed differences; I do not really know. The detailed differences I am afraid must be got from the Lighthouse Authorities.

3406. Again, I notice that the miscellaneous expenses of the Trinity House fell £4,336 in 1906; do you know any reason for that?—No, Sir, I am afraid I do not know the circumstances.

Accounts: Difficulty in distinguishing between New Works and Maintenance.

3407. Now, we have evidence from the Engineer of the Trinity House that new additions to the extent of £4,000 a year—I think that was the sum he mentioned—are expended on the lighthouses, and are not put into the estimate for new works; is that the case?—Additions to lighthouses?

3408. Yes, alterations and additions?—There may be alterations in lighthouses; that would come under repairs.

3409. Now, is it possible, under the circumstances, to get a really correct account of what the cost of maintenance is? I may say that, if it is true that in the lighthouses what we in the Navy call additions and alterations are put into the account for repairs and maintenance you cannot get a correct account?—Well, of course it is extremely difficult to say what come under new works and what come under maintenance. It depends very much upon the circumstances of each particular case. If it is simply a re-

placing of something that is there already, that will be a proper charge for maintenance.

3410. I do not see that it is possible under such circumstances to really get the working cost of the establishment?—It is extremely difficult to do so.

3411. And my opinion also is that all replacements and additions should be under a separate head; that is the way in which it is always done?—I think replacements would certainly come under maintenance; they would not be new works.

3412. Replacement is what we call an addition—alterations and additions; and when you are undertaking the repair of a ship, or the repair of *any* mass of machinery, you must be exceedingly particular in separating what is the cost of repairs proper from what are additions and alterations, and it appears to me that with the three Boards the whole of these things are mixed up?—I do not think there is any very strict line drawn between new works and maintenance; it is extremely difficult to draw such a line.

3413. Well, I say the line is drawn in all business concerns, and it is certainly drawn most strongly in the Navy, and, I think, in the Army too.

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3414. (*Colonel Herbert.*) There is always a difficulty; it is a very difficult point, but a very useful one. Does the Board of Trade issue any financial instructions to the Lighting Authorities as the heads under which they are to charge their expenditure?—No, we only issue the forms of accounts, which contain headings, of course, but we do not issue any instructions.

3415. Therefore you do not go beyond those particular columns which you lay out; you do not go behind that?—We do not go behind that. Supposing there was something in new works which we thought ought not to be under new works, or there was some large item under repairs which we thought ought not to be under repairs, and ought to go before the Advisory Committee, we should probably transfer that. I do not think we have ever considered these new works as actually representing what would be charged to capital in a company.

3416. (*Admiral Henderson.*) No, but then again you can have a form that what are alterations and additions to existing works should be in a separate column from what were absolutely essential repairs to keep things in working order. You would not, of course, put in new construction into that. In the Navy that is an entirely separate account; we do not mix it up; but when you have a machine you have constantly to make alterations to bring it up to date?—Yes.

3417. To illustrate it by the matter of a ship—some invention comes up, or some improvement comes up, you have to alter all sorts of things, and put them in in some form or another as an alteration or addition, and that, in all business matters, should be kept in a separate account as nearly as you can. Is Table B really of any value as to the cost of administration?—I doubt whether it is of very much value for that purpose.

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3418. Have any savings been made out of the Lighthouse Fund lately?—Do you mean, is there a balance?

3419. A balance, yes?—There is a large balance, Sir.

3420. A large balance?—Yes.

3421. And do you know its amount?—Yes, it consists of £78,888 cash, £325,000 invested.

3422. Is any interest secured on the balance?—Yes, Sir, on the invested part of the balance.

3423. What part is invested?—The investment is £325,000, Sir, but part of that belongs to the Basses Lights; £70,000 stock belongs to the Basses Lights; the remainder belongs to the General Lighthouse Fund, apart from the Basses Lights. Of the £78,888 cash, £10,886 belongs to the Basses Lights.

al receipts 1905.

3424. What is the total of the Lighthouse Fund for 1905?—The total receipts?

3425. The total receipts, yes, for 1905; I do not think we have got them?—In 1905-6, the light dues received amounted to £500,997.

3426. I do not think it is actually published yet?—No, Sir, it is not. I can hand you in copies of the proof.

3427. I just want to know the actual amount?—The amount received for light dues was £500,997. Then there were rents from lighthouse property, and proceeds of sale of stores, £2,781, and that made a total of £503,778. Then there were lighthouses abroad, which come into the account.

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3428. I do not think that affects us at all?—No.

3429. I am to ask you one more question; have you any suggestions to offer for improving the present administrative system?—No, Sir.

3430. From your personal experience, have you any point?—I have not any points to offer, Sir.

3431. (*Chairman.*) On the subject of the amount of the General Lighthouse Fund, complaints have been made, I think, from time to time, that the reserve fund is larger than it ought to be?—Yes.

3432. Have you any observations to make on that?—It is considered from time to time by the Board of Trade, and remissions are granted when it is thought advisable to do so. There was a remission of 12½ per cent. a few years ago, and there is another remission of 7½ per cent. which will come into effect on 1st April next.

Recent reduction of Light dues

3433. Do you think it would be wise very materially to reduce the amount of the reserve Fund?—Not to reduce it very largely; we must have a considerable balance in hand.

3434. (*Sir Frank Adam.*) Have you formed any opinion in your own mind, speaking generally, of the comparative merits of the practice, system, and methods of the three Boards?—Do you mean as regards the way in which they carry out their work?

General Lighthouse Difficulty of comparing, generally.

3435. With an eye, of course, in your case, to economy; looking at it from your point of view?—I am afraid I have not; the circumstances are so different that it is extremely difficult to form any comparison.

3436. Even on broad lines?—I think that the way in which the Irish Board do their work is less satisfactory to us than the way in which the other Boards do it.

3437. When you say "less satisfactory," you mean that they do not get quite as much work for the money they spend, or that it is not so systematically or methodically done?—It is not so systematically done. I do not think their schemes are so well thought out as those of the other Authorities.

3438. Arising out of some questions that have already been asked you, I think you stated that no salary or wages or allowances, no new works or extensive repairs, can be undertaken without the special sanction of the Board of Trade?—That is so.

3439. Then are all tenders, such as tenders for oil, coals, and other stores, submitted for approval?—They are.

Contracts: Control of Board of Trade over.

3440. So that to that extent the Board of Trade, apart altogether from the audit of the accounts, which is a matter of book-keeping, does exercise a certain amount of control over the details of the expenditure?—They control the whole of the expenditure; the whole has to go before the Board of Trade.

3441. When you say tenders are submitted—that is, by any of the Lighthouse Authorities—when you look into the tenders, what is your system of doing so?—We see that they accept the lowest tender, unless there are some special circumstances to justify a departure from the rule.

3442. And you satisfy yourselves at the Board of Trade that that tender is the lowest?—Certainly, Sir.

3443. And that the tenderer is a person in a position to execute the tender if he gets it?—Well, that is left to the Lighthouse Authority.

3444. You accept their statement on that head?—We should not make any inquiry unless we had some special grounds for doing so.

3445. In reference to the division under the different heads of expenditure, would you make in your own mind a distinction between an addition to a lighthouse and a repair of a lighthouse?—I think it would very much depend upon the nature of the addition. If it were a large addition we should charge it to new works; if it was something small it would probably go to repairs.

Accounts: Difficulty in distinguishing between New Works and Maintenance.

3445a. You see in all large businesses, as a rule, there is a depreciation set aside for wear and tear of machinery and other things?—Yes.

3446. There is no depreciation, of course, in your books?—No, everything is paid out of revenue.

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3447. Everything is paid out, and the actual cost of repairing anything that is required to be repaired in a lighthouse or a lightship, or in the way of altering or improving a light, when that is necessary, goes against what would be considered wear and tear and depreciation account in a business firm?—Well, of course, all our new works, the whole capital expenditure comes out of revenue. I do not think there is the same reason for having a depreciation account.

3448. Well, you would wish, if possible, would you not, to give returns at the end of the year showing exactly what has been spent upon actual new works, and therefore has added to the general lighting facilities of the coast, and to keep separate what has been spent simply on repair or renewal?—Roughly, that is done by the accounts.

3449. But I think you admitted, in answer to one of Admiral Henderson's questions, that it was very difficult to separate them, and that possibly a good deal that might be put into repairs went to the debit of new works or *vice versâ*?—Probably, Sir.

Board of Trade control over Lighthouse Authorities: Nature of,

3450. (*Colonel Herbert.*) I take it from what has passed that you look upon the control exercised by the Board of Trade over the Lighthouse Authorities as a purely financial control?—I do, Sir.

3451. Do you think that the limitation of that controlling power tends to make the Board of Trade not look closely into questions of administration, such as those that Admiral Henderson spoke of?—I think, Sir, we should look into any question of administration as it affected expense. If we thought that the administration was extravagant we should inquire into it.

3452. Would it be correct to put it in this way, that the Board of Trade thinks more of the financial results of the administration than of the aspect of the administration, or the detail of the administration?—I think the Board of Trade, of course, are very much interested in the lights being properly kept up, and they would not do anything to affect the proper maintenance of the lights; but they would wish to see that administration was carried on with the least possible expense.

3453. I am thinking purely of the administrative point of view, of the financial and the administrative aspects of the question?—We do not care, I think, what the precise system of administration is so long as it is not too costly. We leave the responsibility to the Lighthouse Authorities. We do not wish to relieve them of any of their responsibilities for seeing that the lights are properly maintained.

3454. Would it be correct to say that while the several Lighthouse Authorities are left absolutely free to carry on their business as they like, you exercise a very highly centralised financial audit?—It is more than an audit, Sir.

3455. Control?—Financial control, yes.

Duty of Nautical Adviser with regard to,

3456. (*Admiral Henderson.*) And therefore it would be true to say that you have not on your side any expert advice or business expert that could inform you of any lack of business capacity in the administration?—We have no expert adviser, except Captain Frederick.

3457. But he is not consulted on the question of this examination of the accounts?—Not of accounts.

3458. He is only consulted when there is some disagreement on a question of new works?—He is consulted in all cases where nautical questions come in, Sir.

3459. Yes, but is he consulted on questions of business administration?—He is consulted on such questions as the repair of lightships. If it was proposed to spend what seemed a large sum on repairing a vessel, we should refer the paper to him, and ask for his opinion.

3460. That is not what I mean. What I mean is, the business system of the Boards?—That is hardly a matter upon which we should consult Captain Frederick.

3461. You have no expert advice to do it?—No. We have no expert adviser but Captain Frederick. We frequently consult him. For instance, the Irish Lights Board some year or two ago wanted a new inspector. We sent Captain Frederick to Dublin to make inquiries as to the necessity for that.

3462. (*Mr. Ennis.*) It has been suggested to us in evidence that the Merchant Shipping Act of 1898 provided that monies resulting from the light dues on shipping should in future be applied solely to maintenance and construction of lighthouses—to lighthouse works solely?—Yes.

Control over Expenditure.

3463. And it has also been suggested to us that a large increase in the cost of lighthouse maintenance since that date has arisen from the fact that the incentive to economy on the part of the Treasury disappeared with this provision in the Bill of 1898, prior to which the surplus monies provided by the light dues were applied not to the general relief of taxation, but to such purposes as pilotage work, and work of that kind?—Yes.

3464. Is it your view that there is any foundation for the suggestion?—No, Sir, not the slightest foundation. The Treasury have not now and never have had any control over the lighthouse administration.

3465. Well, further, you exercise the financial control that you have spoken of, and you see that the expenditure of the different Lighthouse Authorities is judicious and economical?—Yes, Sir.

3466. Do you satisfy yourselves that it is legal and within statutory authority?—Certainly; we should not allow any expenditure which was illegal.

3467. You are aware, of course, that the cost of lighting the port of London, which amounts, we are informed, to £40,000 or £50,000 a year, is borne by the General Lighthouse Fund?—Yes.

3468. And I assume you have satisfied yourselves that the Trinity House has statutory authority for giving this large preferential treatment to the port of London as compared with the other ports of the United Kingdom?—I think that is a question for Mr. Pelham; it is administrative rather than financial.

Issue of, by Admiralty only, advocated.

3469. Then I shall have three important questions to put Mr. Pelham with regard to the Mizen Head, the Fastnet Light, and the lighting of the port of London?—Yes, Sir.

NINTH DAY.

Tuesday, 19*th February* 1907.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*)

Captain T. H. Tizard, C.B., F.R.S., R.N., called in; and examined.

Efficiency of lighting of coast of United Kingdom.

3470. (*Chairman.*) Captain Tizard, I think you hold the post of Assistant Hydrographer to the Admiralty?—I do.

3471. And you are here to represent the views of the Admiralty?—Yes; to represent the views of the Admiralty officially.

3472. The office you hold is one which gives you special facilities for forming an opinion as to the efficiency of the lighting of the coast?—Certainly; not only the position I hold, and from having had no complaints from the officers who are piloting ships round the coast, but also from many years' experience in surveying round the coast of the United Kingdom.

3473. And the conclusion that you have arrived at is that the lighting is——?—We have nothing to complain of. The lighting is efficient, certainly.

3474. Would you have been in a position to hear complaints from officers in the merchant service as well as in the Navy?—No; the complaints we hear, upon which I base my opinion, are from the Remark Books sent in by every navigating officer annually, and which pass through the hands of the Hydrographical Department; they contain any remarks they would like to make with respect to the lighthouses and the light-vessels.

3475. As a matter of fact, no such complaints have been made?—Very few, if any, observations are ever made about them. They have no complaints to make practically.

Notices to Mariners.

3476. I think you desire to make some observations with regard to notices issued to mariners by the Lighting Authorities?—I understood from the letter sent from the Commission to the Admiralty that there were three points upon which the Commission would like to have testimony, and one of these was whether it was necessary for the various Lighthouse Authorities to issue Notices to Mariners. Of course, this is a point upon which we have an opinion which the Commission may or may not agree with. The object of issuing the Notices to Mariners is to enable the mariner to correct the various publications which enable him to navigate his ship safely. The Notices to Mariners issued by the three Lighthouse Authorities do not contain sufficient information to enable him to do this, and very often we have, when we receive some of these notices, to write to the Lighthouse Commissioners to ask what they mean before we can publish the Notices to Mariners which will convey all the information they wish to convey. Then, again, they do not in any of their notices inform the mariner what charts, sailing directions or light lists are affected by these notices. They have only lately given in some instances the latitudes and longitudes of the places, so that there is a difficulty in any officer, or any mariner, picking up quickly the exact position of the place to which they refer.

3477. Your point is that the notices issued are not of a kind to give any real or useful information?—They give a certain amount of information; some of them give the information required, but all of them do not. The Northern Lights Commissioners are especially lax in this way, and we frequently have to write to the Northern Lights Commissioners asking them to state or mark upon the chart the exact position of a light-house or beacon, because we cannot make it out from the notices they give.

Captain. T. H. Tizard, C.B., F.R.S., R.N.

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3478. Supposing the form of notice which they give were amended, would you still think it would be undesirable for them to meddle in the matter?—I think so, for this reason: Their notices only reach a very limited class of people; they are not scattered all over the world. They only reach a few people in this country; they do not reach the foreign-going ships. They certainly never reach any of his Majesty's ships.

3479. Granting that the notices reach comparatively few people, do these not receive them earlier than they receive the same information from the Admiralty?—Yes.

3480. Considerably earlier?—I do not say "considerably," but earlier.

3481. In so far as they do receive them earlier, it would be an advantage?—Certainly, but there is no reason why they should not receive them as early from the Admiralty, if they would send the information direct to the Admiralty instead of waiting till it is printed and then sending it. At present the information which the Admiralty publish afterwards is received by the Admiralty from a printed notice as a rule. This notice has to be arranged according to our system, in which we put down all that affects the sailing directions or the charts and light lists, and then it is sent to the printers to be set up and revised before being issued; whereas if the information were sent direct by letter it would be published almost as quickly by us as by the Trinity House themselves or any of the Commissioners.

3482. Have the Admiralty ever requested the Lighthouse Authorities to send this information by letter?—Oh, no, it is not for the Admiralty to interfere with these Lighthouse Authorities; we have no jurisdiction over them.

3483. Still, they do communicate; they do send the printed notices?—They send the printed notices.

3484. Would it not be an advantage to send regular information to ships as soon as it is practicable to do so?—It might be an advantage sometimes in the case of some of our vessels, but as a general rule most of this information can wait till the ships receive it. Anything of very great importance is published, required at once, such as when a wreck takes place, and that is a danger which cannot be guarded against. If a lighthouse be altered or inaugurated, or if a buoy be altered in an important position, notice is given some time beforehand that it will be done; therefore the ships that have these notices are not surprised if they see a buoy altered before they get the actual information that it has been altered, or that a light has been inaugurated.

3485. Do the Lighthouse Authorities send information of what they propose to do?—Oh, yes.

3486. And that is inserted?—We give a Notice to Mariners at once.

(*Admiral Henderson.*) It would be done, certainly.

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3487. (*Chairman.*) Is the date given?—As a rule; on or about such and such a day.

3488. Apart from this question of Notices to Mariners, I understand there is no special matter on which you desire to offer evidence?—No.

3489. You will be prepared to answer any questions the Commissioners may desire to ask?—Yes, but that part does not interest the Admiralty.

Sources of information for,

3490. (*Colonel Herbert.*) Where, or how, do you get the information for the notices you do publish?—We get it from the Lighthouse Authorities, from all foreign nations, from any particular letter sent in, from any mariner who sights a wreck or rock, or comes across a lighthouse which does not agree with the description given. Any mariner, in fact, writes straight to the Hydrographic Department.

3491. Is it a regularly recognised practice?—Yes.

3492. Not only in His Majesty's ships, but in the Merchant Service?—Certainly; we get a great deal of information from merchant vessels which pass or discover anything.

3493. Then it is rather an exception that you do not get the information you require from the Lighthouse Commissioners?—Oh, we get the information we require from them after a time, but they do not give it very often. The communications which we receive from merchant vessels, or from our own ships, do not contain all the information we should desire, and we have to make inquiries about it, in order to correct the charts and Admiralty publications.

3494. Do you think there is apt to be misapprehension in the minds of mariners, or persons connected with ships, owing to there being different classes of Notices to Mariners?—I do not think so, because most of them do not reach them. The only ones our notices reach are His Majesty's ships, and these notices are copied by the Board of Trade and issued gratis to all merchant ships, so that practically all merchant ships—except the mail lines of steamers, which invariably get our notices from Mr. Potter, the Admiralty Agent of the Board of Trade—get Notices to Mariners which are copies of ours, except that they have one great fault to my mind, and that is, they do not contain a list of the publications that they affect; and this, I presume, is because the Board of Trade do not wish to emphasise the fact that vessels ought to use Admiralty publications, in preference to those of private sellers. Of course, in saying what charts are affected in these notices, we give the numbers and descriptions of the Admiralty charts; but there are lots of modern vessels—especially fishing vessels—who do not use Admiralty charts; they use what we call "blue-backs." I presume that is the reason the Board of Trade do not give chart numbers, because those numbers apply to the Admiralty charts, and not to other charts.

3495. Do you think it would be an advantage that there should be only one system of publication?—Oh, certainly; decidedly.

Efficiency of lighting of coast of United Kingdom.

3496. (*Mr. Ennis.*) When you speak of the efficiency of the lighting of the coasts of the United Kingdom, do you speak of that as an actual fact, or do you speak of it in the comparative sense of the lighting of the coast of the United Kingdom being equal at least to the lighting of the coasts of foreign countries? I take it you would lay it down as a proposition that, considering the enormous volume of trade of the British Empire, and the interests at stake, the lighting ought to be at least equal to the lighting of the coast of any other country?—Certainly.

3497. In arriving at their view that the lighting of the coasts of the United Kingdom is efficient have the Admiralty taken into consideration the efficiency of other countries as well?—I think so, certainly.

3498. I mean, are reports made by officers of His Majesty's ships with regard to the systems of foreign countries?—The fact of the matter is, the lighting of the coasts may be considered under two views. A coast requires to be lit to lead a ship to port, and a coast requires to be lit also to warn a vessel of danger. Unfortunately it has been the habit of the people navigating ships, to run for those lights which show dangers, rather than try to keep clear of them, and the consequence is they come to grief in many cases. I am not aware that on the coast of the United Kingdom there is any great danger not marked, or any want of lights to lead a vessel safely to the port she is bound for.

3499. Is there not a considerable section of the coast of Scotland which could be improved by further ighting facilities?—If there was any trade requiring it, there might be some parts certainly which might be lit better with advantage. But my contention is, you only require to light those parts where trade is passing by to safely lead vessels that are bound to a port.

3500. I take it you consider efficiency the first consideration, not economy; that you demand efficiency first and economy afterwards?—I am not quite sure of that. I am not sure that economy should not be combined with efficiency.

3501. But you would not omit any safeguard you considered necessary? In regard to the enormous value of the sea-going trade of this country, and the lives involved, you would not consider any safeguard should be omitted?—No, certainly not.

3502. For the protection of life and property?—If by chance a single safeguard were omitted, I should be one of the first to raise an outcry.

3503. The Admiralty probably are in a better position than any other body in the world to give an authoritative opinion on this subject, because His Majesty's ships visit every part of the globe?—They do.

3504. And are more in touch with the conditions obtaining in other places than any other mariners?—I think they are, because they do visit every part of the globe, and the officers take their vessels about to every part of the globe, and are not confined to certain well-defined and particular routes, as most of the great lines of steamers are.

3505. That is my point?—They have experience of the world as a whole.

3506. (*Admiral Henderson.*) May I interpose for a moment? It is correct to say that the Admiralty orders to officers are to forward constantly every information which would assist navigation, or any changes that are in progress. It is strongly impressed upon them to do it?—That is so.

3507 (*Mr. Ennis.*) The efficiency of fog-signalling has enormously increased of late years?—I will not go so far as to say the efficiency of fog-signalling has increased, because unfortunately there are always areas of silence around fog-signals, and you cannot get over these.

3508. That is the case now with regard to these experiments recently conducted with regard to submarine bells?—Certainly.

Submarine bell fog-signals: Experiments with,

3509. Do you consider the Lighting Authorities of the United Kingdom have been as wide awake and up to date in experimental work as the authorities of other countries?—So far as I am aware the Lighthouse Authorities did experimentalize with the submerged bell, and one of the officers of the Hydrographic Department went out with the Authorities when they were experimenting, and his reports were most favourable.

Establishment of, in Canada and United States.

3510. As a matter of fact, bearing out my former question, has this submarine bell been installed on the Lurcher Shoal in the Bay of Fundy and also off Anticosti? The Canadian Government had them in actual working more than two years since, and also the United States Government?—That is so; it is over two years ago that these experiments, I believe, were undertaken. I am not certain as to the time, but I think it was about two years ago that the experiments with the submerged bell were undertaken at the North Sandhead lightvessel. When the Canadian Government and the United States Government instituted these submerged bells we were in correspondence with them, and asked them frequently to let us know what they considered about them, but we have never had a satisfactory answer from them yet.

3511. But, as a mattor of fact, on this side experiments have been undertaken with the submarine bell, which you say have proved satisfactory?—Yes, I understood most satisfactory.

3512. Both the Canadian and the United States Governments are not in the experimental stage, but they have had—I shall not call it an invention—but an application of this bell, in use for a period of over two years?—They have, but in some cases they have abolished it since.

3513. (*Chairman.*) May I ask what you mean when you say you have not received any satisfactory answer from the Government of the United States or Canada?—We have not received any answer at all about submerged bells. With every Notice to Mariners we issued about these submerged bells, we asked the mariner

who was passing to communicate, not only to the Government instituting the bells on board lightvessels, any remarks he had to make respecting them, but also to inform us. We have never had any reply from any vessels passing, and although we wrote to the Canadian Government and the United States Government asking the Government people to tell us what the position was with regard to them, whether they thought them successful or not, we never had any reply.

3514. No reply, either by way of commendation or criticism?—None.

3515. (*Sir Frank Adam.*) Some of them have been abolished?—Some of the Canadian ones. The other day we had a notice from the Americans to say that only certain bells that were established on board lightvessels were Government bells. The others were experimental bells established by private people.

3516. (*Mr. Ennis.*) But, as I say, the fact remains that the installation is in operation on the other side, and the experiments on this side have gone to show the efficiency of the system?—Yes, the reports we had at the time from our officer who attended were certainly most favourable.

3517. And, therefore, do you consider that the Lighting Authorities on this side have shown zeal in their desire to obtain most efficient and up-to-date apparatus?—I am not aware how much they have been hampered in their application of this thing. I believe they cannot do this without money is provided. They have not the money themselves.

3518. That leads up to my former question. Would you not consider it false economy to refuse the money for experimental purposes in such an important matter as submerged bells?—Certainly; anything which would conduct vessels in a fog, or give reasonable prospect of hearing a fog-signal, should be cultivated as much as possible.

3519. The Commissioners have had a quantity of evidence before them as to areas of silence in connection with existing fog-signals. Therefore, it is manifest that anything which will be efficient in a fog is of enormous value?—Certainly.

Diaphone:

3520. Another subject which led to experiments is the diaphone. The diaphone is, we have been told by engineers, assumed to be, probably or possibly, an improvement on existing sound fog-signals. That has also been in operation in the United States and Canada?—A great many of the fog-signals are diaphone signals in Canada.

3521. But not on this side?—So far as I remember, some were experimentalized with on the St. Catherine's Lighthouse.

3522. Only as experiments?—I was present, but this diaphone was not heard better than other signals.

3523. As a matter of fact, there are no diaphones established on the coast of England, except as experiments?—So far as I am aware, there are none. I am not quite certain without referring to the light list; I do not actually remember the particular character of every fog-signal round the coast.

Wireless Telegraphy: Establishment of, on lightvessels deprecated.

3524. Most of the ocean-going liners, and, I assume, His Majesty's ships, are now fitted with wireless telegraphy apparatus?—A good many of them are.

3525. Would you consider it desirable that lightvessels on the coast should be fitted with receivers for this?—That is a difficult question, and the difficulty of the question arises in two ways. If a lightvessel is in a position to convey information respecting an enemy's movements she must be considered as practically a war-signal station.

3526. In war?—Certainly; if you have apparatus on board which can be used to convey information useful in war, the lighthouse or lightvessel loses her character of simple benificence and becomes a war-signal station.

3527. Assuming that to be so, would it not be possible in view of the enormous value of lightvessels to a coast, to deal with lightvessels having apparatus of that kind in time of war on the lines of an ambulance?—I do not think an enemy would hesitate to destroy any war-signal station they could.

3528. Assuming there was no Marconi apparatus on board any lighthouse or lightvessel, would lightvessels be likely to be destroyed then?—No; it has never been considered in any war, so far as I am aware, that any lightvessels or lighthouses should be destroyed by an enemy. Their benificent character has always been respected.

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(*Admiral Henderson.*) It is the custom of international law, the same as the custom not to interfere with fishing vessels.

3529. (*Mr. Ennis.*) That was my impression. Assuming that to be so, if a war broke out to-morrow, and assuming no Marconi apparatus to be established on board lightvessels as an ordinary aid to navigation, would it not be possible, in the event of war, to establish it for the purpose of war?—Certainly, quite possible, but unadvisable.

3530. And therefore, if we omit to provide these aids to navigation on lightvessels, because the lightvessels would be liable to be destroyed in time of war would that affect our position, because in time of war the installations might be destroyed?—First of all I cannot say the Marconi system is an aid to navigation.

3531. That was my question?—I do not see how the Marconi system is an aid to navigation. The Marconi system may possibly be useful to keep up communications, but it does not tell you where the lightvessel is, or the distance you are, or the bearings, from it. I do not see that the Marconi system is an aid to navigation.

3532. That was my question; do you consider ——?—No, I do not consider the Marconi system an aid to navigation. It may be an aid in other ways—in informing a ship, perhaps, of a danger near the lightvessel or lighthouse, but that is the only way in which it could be considered an aid to navigation. You cannot tell from an interchange of signals by wireless telegraphy where the station is that you are interchanging with, or how far you are off your bearings.

3533. You know you are within a certain area?—I do not know that even, because wireless telegraphy has been exchanged at a distance of 800 miles.

3534. Quite so. The aid to navigation would certainly be very limited?—Very limited.

3535. You do not consider it would be worth the cost of installation on lightvessels as an aid to navigation?—No.

Submarine bell fog-signals: Advantage of.

3536. On the other hand, you would consider the submarine bell an aid?—Certainly. So far as I know at present, it is still in the experimental stage in the Navy, but I believe it is likely to be a success. So far as I understand it at present, the fact of the matter is, that if a sandbank intervenes between the bell and the vessel that is approaching the lightvessel there is some difficulty in hearing it; but this I have no written information about. It is only in conversation with people that I have gathered that that is the difficulty about them—that sandbanks do interrupt the sound, and therefor if you approach a lightvessel on the danger side the sandbank may just interrupt your receiving any signal on your approach, and you may run upon the danger.

Illuminants: Relative advantages of.

3537. With regard to efficiency of lights, and comparing the electric light, vaporised oil, and acetylene, which would you consider, irrespective of cost altogether, the most efficient light?—It all depends on the situation of the light. If the light is situated down close to the shore the electric light has great disadvantages. It shines in your eyes, and blinds you to the lights of approaching vessels; and this was so much the case at Dungeness, where an electric light was introduced, that it was taken away. But when you put it on an elevation like the South Foreland, where in approaching the place the light is overhead, and you only see the ray, that does not shine in your eyes, and you have no difficulty in seeing vessels. I would not confine myself to say that one particular mode of lighting is better than another; it has to be considered what the light is for.

3538. Quite so?—If you want to light a danger which you do not want to get near, and to warn vessels which would therefore stand away, then, so far as my experience goes, the electric light is better because it carries farthest, but I am not aware that it carries farthest in all weather.

Short flashes deprecated.

3539. Quite so. Assuming, as I said before, that the cost has not to be taken as a factor in the question, would you consider the powerful French lights, such as Cape Grisnez, showing a distance of 20 miles, to be desirable?—I have a strong opinion on those French lights. In the navigation of the present age, you require more than ever to omit compass bearings and take angles between lights, but how on earth are you take angles if a flash only lasts for one-tenth of a second. Even if you could get the thing in the sextant, it is instantly gone again; you would take hours. I have seen it so much upon the coast of England, where it has sometimes taken an hour to get an angle between two

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revolving lights, because they were not visible at the same time. Although the advantage of a brilliant light shining out and penetrating is very great in some places, there is a certain disadvantage.

3540. So you consider in that event the duration of the flash is too short?—Too short. One-tenth of a second is too short to enable you to get a bearing or an angle.

(*Admiral Henderson.*) This is the general complaint.

3541. (*Mr. Ennis.*) Assuming the duration of the flash to be sufficient to enable you to take the bearing, do you consider it an advantage that such a powerful light should show a distance of 20 miles or more?—I do not think so in the case of Grisnez.

3542. Not in that particular case?—If there is any danger, the further it can show to warn vessels the better. But when you are approaching a coast to reach a harbour, I think it is not so important that it should show so many miles as that it should show clearly and easily how to approach the port with perfect confidence.

3543. In the case of lights placed in a position such, say, as the Fastnet on the Irish coast, I assume the carrying power of the light would be of enormous advantage there?—Certainly.

3544. You would desire that it should be seen as far as possible?—Certainly.

3545. Would you consider that any modern invention, which would project the light to a very great distance, would be an advantage?—Certainly.

3546. You have said that the Notices to Mariners issued by the Lighthouse Authorities are practically of a misleading character, inasmuch as they do not contain sufficient information when they are issued?—I would not say they are misleading.

Notices to Mariners: Issue of, by Admiralty only, advocated.

3547. Possibly "misleading" is too strong a word; I mean they are susceptible of improvement?—Capable of improvement, certainly.

3548. You would favour a system by which the Admiralty would issue the notices altogether, and would be advised by the Lighthouse Authorities—kept posted properly—with all information that came within their knowledge at once?—I should think that would be the best.

3549. Most efficient?—I think so; that is my opinion.

Charts issued by the Admiralty: Advantage of,

3550. With regard to charts, you have said the Board of Trade do not wish to emphasise the use of the Admiralty charts?—That is only a surmise.

3551. But there are these blue-back charts in use also. Have they any official sanction; is there any guarantee of their accuracy?—Absolutely none.

3552. I take it, therefore, you also consider, in the interests of navigation and the safety of life and property, that the seafaring community would be better advised to use a chart which would have official sanction?—That is my opinion. The difficulty is there is nothing to force them to use it. The underwriters do not force vessels to use Admiralty charts, or any charts. There is nothing in the underwriting business, or at Lloyd's, to say they are to use charts at all.

3553. (*Admiral Henderson.*) Most of the skippers of the fishing-boats of Scotland do not even know how to use a chart?—Many of them do not.

3554. I will give you an instance. I very often go to the North of Scotland. A friend of mine, Lieutenant Philip Egerton, R.N., in a praiseworthy manner established a class at Helmsdale for teaching the fisher folk coastal navigation. He had some difficulty in getting any but a few to attend. None of them had ever seen or used a chart, and his first object was to teach them to make use of the lights and headlands on the coast by the employment of one. Previously they had been accustomed to go solely by rule of thumb.

3555. (*Mr. Ennis.*) As to efficiency, the Admiralty charts are superior to the unauthorised charts?—Certainly.

3556. (*Admiral Henderson.*) In regard to the efficiency of electric light, is it true to say that, even with the best of lights, it does not follow that they are always seen at a uniform distance; the question of the weather and the condition of the atmosphere very much affect the distance of visability?—Certainly.

Wireless Telegraphy: Establishment of, on lightvessels deprecated.

3557. Might I assume also it is your opinion that, practically, wireless telegraphy fitted to lightvessels is of no use, except to report a wreck or danger?—As far as I am aware, no navigational use.

3558. It is only in certain positions that even then it would be useful?—That is so.

Submarine bell fog-signals: Experimen with,

3559. Not in all. Have not the Admiralty recently—within the last few weeks—been carrying out experiments in submarine signalling?—The last I saw personally of it was a report about the submarine signals, and it was suggested from our department that, at any rate, some of these signals might be usefully made into a code for submarine boats. I believe that was approved, and some experiments are being made as to whether a code of signals cannot be instituted, by bells or something of that sort, for submarine boats.

3560. I noticed in the papers the other day that one or two vessels were carrying out experiments, and it said they had all made reports. You have not seen them?—Not the whole of those reports.

Charts: Issue of, by Admiralty.

3561. May I take it that all the original official documents connected with navigation are issued by the authority of the Hydrographical Department of the Admiralty?—Yes.

3562. They are used universally, not only by us, but by all nations?—Yes.

3563. These navigational charts are issued officially under the Admiralty?—Yes; in fact, the Russians go so far as to prefer our charts of their own coast to their own.

Notices to Mariners: Issue of, by Admiralty only, advocated.

3564. In the case of these hydrographic notices issued by the Lighthouse Authorities, supposing they were done away with, it would be perfectly possible for them to notify you by telegram in case of a wreck?—Yes. You see we do not necessarily give a notice for this reason. If a wreck is marked, it is always marked in the same way, and every sailor is acquainted with the way in which it is marked; and we maintain that there is no necessity to give a notice of a particular wreck, unless under certain circumstances—if out at sea—where, that wreck being marked, it may become of use to a vessel suddenly coming across it to know where she is. If it is so close to the shore that no vessel could get there, and the wreck is always marked by a buoy, we maintain it is no use to give a notice, because every sailor understands these marks.

3565. Certainly. You think there would be an economy in reducing these mariners' notices?—I do not see much advantage in the various Lighthouse Authorities issuing the notices, and it would certainly be an economy to do away with it, and let one authority issue all the notices.

3566. Have you any other suggestions for the Commission on these points?—No, but I am willing to answer any question the Commission may like me to answer.

Charts: Advantage including sketches of seamarks in

3567. (*Mr. Ennis.*) I just wanted to ask, do you consider it would be advisable—I believe the United States issues to mariners diagrams of their lighthouses and the principal buoys; a book of diagrams—do you consider that would be an aid to daylight observation?—You mean sketches of the lighthouses?

3568. Yes?—In most cases in which we have marks which it is important the mariner should be able to recognise at once, they are on the charts; sketched on the charts.

3569. On the charts. But I understand that there are books issued. This is not the one I refer to (*exhibiting book*); this is the Canadian one?—That is to say, with those sketches at the end. Quite so.

3570. Do you consider if those were to be issued by the Lighthouse Authorities or the Admiralty it would be an aid to navigation?—Some of them. For instance, I do not mean this (*referring to book*). This is a light house as it appears from the shore. That is no use to the mariner; he wants to know what it looks like from the sea. We endeavour to get the sketches from the sea; in fact, we are instituting the supply to all surveying vessels of photographic apparatus, to enable them to take the views of the lighthouses as seen from the sea. Those we shall put on the chart, and for making lights you have not to refer to another book but to consult the sketch of the lighthouse on the chart.

3571. I am glad to find the Admiralty appreciates the value of the point I have been making; that such diagrams are a great aid to navigation?—Certainly.

Efficiency of lighting of coasts of United Kingdom.

3572. (*Chairman.*) May the Commission take it to be your opinion, and that of the Admiralty, that the lighting and marking of the coasts is, at least, as well carried out in the United Kingdom as in any country in the world?—That is so.

TENTH DAY.

Tuesday, 26th February 1907.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Captain E. F. Inglefield, R.N., called in; and examined.

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3573. (*Chairman.*) You are, I believe, the Secretary of Lloyd's?—Yes.

3573a. And you are here to-day to give evidence on behalf of Lloyd's?—Yes, that is so.

Lloyd's: Functions of, bringing them into connection with the Lighthouse Authorities.

3574. Would you please begin by describing to us the functions discharged by the Corporation of Lloyd's that bring them into connection with the Lighthouse Authorities?—One of the principal functions performed by the Corporation of Lloyd's, as defined by Lloyd's Act of Incorporation of 1871, is the collection of maritime intelligence from all parts of the globe, and the publication and diffusion of that intelligence in the United Kingdom and abroad among those who are interested in shipping matters and in oversea trade. By maritime intelligence is meant any information affecting shipping, cargoes and freight.

In order to carry out the large business involved in the world-wide collection and distribution of such intelligence, it is necessary to have a carefully arranged system of signal stations in the vicinity of the principal trade routes as well as at the most important ports at home and abroad, besides specially appointed agents at every port in the world. Lloyd's has some 1,400 agents and sub-agents who, in addition to the important duties which they perform as the representatives of the Corporation, are specially charged to transmit at once all the latest maritime intelligence from their respective districts.

The United Kingdom, owing to its geographical situation and the predominant part which it plays in the business of the world, is necessarily the principal focus of ocean commerce. It is therefore round its coasts that the most constant watch has to be kept; and it is there, consequently, where Lloyd's principal signal stations are to be found. The last fifty years, however, have been a period of steady transition with regard to the mode and rate of progression of vessels of every kind—from sail to steam, and from low-powered steamers to those of high speed. This constant increase of speed, and the consequent more direct routes followed by merchant vessels, have an important bearing with regard to the positions of signal stations, for it becomes necessary to establish those stations further and further away from the various ports of arrival, in order to give sufficient notice to owners and other interested parties of the movements and approach of their vessels.

This may be illustrated by the case of signal stations in the Irish Channel. Formerly there was a system of signal stations on the North Wales Coast at South Stack, Point Lynas, Great Orme's Head, Voel Nant and Bidston (Cheshire), to report vessels making for the Mersey. Nowadays these stations would be of little use, as the vessels themselves would have reached Liverpool before their owners would have time to prepare for their arrival. It has therefore been necessary to establish signal stations at Malin Head, Inishtrahull and Tory Island, which give timely notice of the approach of vessels from the northward; while those bound up the Irish Channel are reported from the Smalls, the Fastnet, and the Tuskar, at which lighthouses, by permission of the Trinity House and Irish Lights Board, signals are taken for Lloyd's by the lightkeepers.

As another instance of the frequent necessity for changing Lloyd's signal stations, the case of the North Foreland may be quoted, which station has of late years fallen into disuse because the increasing tonnage of steamers has led them to pass outside the Goodwin Sands, instead of through the Downs as formerly. I might explain with reference to this that I do not mean that the channels are not deep enough inside the Downs, but that when you have to handle a large ship going at a high speed it is more convenient to take her round by the outside than to bring her up through a somewhat winding channel.

Distant signal stations are also becoming more and more necessary owing to the growing custom of shipowners to telegraph to Lloyd's orders which they want to have transmitted to their vessels from the first signal station which the vessels may make.

Legal right of, to obtain information from lightstations advocated.

It is likely that in the future Lloyd's will be more and more dependent for maritime intelligence on outlying lighthouses and lightvessels, and it is submitted that if the lighthouses are brought under Government control, Lloyd's should have, in the interests of merchant shipping and all those concerned in oversea trade, a recognised right to facilities for obtaining maritime intelligence from such lighthouses and lightvessels, though, of course, the facilities given should be entirely secondary to the proper performance of lighthouse and lightship duties.

3575. You speak of a right to facilities; are there any provisions of any Act of Parliament at the present time bearing upon the relations between Lloyd's and the Lighthouse Authorities?—No, not between Lloyd's and the Lighthouse Authorities, and there is no Act. As I have tried to explain, it is quite a recent thing that Lloyd's have required to get information from lighthouses and lightvessels, because it has been a continual state of pushing signal stations further and further away from the ports of arrival, owing to the greater speed of the vessels and more direct routes of approach.

3576. There is no provision of any Act of Parliament at the present moment imposing any kind of duty upon the Lighthouse Authorities with regard to the transmission of signals?—None whatever that I know of, Sir.

3576a. (*Sir Frank Adam.*) Purely a voluntary arrangement?—Purely voluntary.

3577. (*Chairman.*) Have you thought what sort of a right you would desire to see conferred upon Lloyd's, because so long as the facilities of which you speak are to be entirely secondary to the proper performance of lighthouse and lightship duties it would seem rather difficult to understand how such a right could be given?—I think it could be arranged that the lighthouse keepers should have certain duties to perform in addition to their duties of looking after the lights, sounding their fog-signals, and cleaning their lanterns, just in the same way as on board ship people have more duties to perform and responsibilities to undertake than any one particular function.

3578. Then would you impose upon them the obligation to convey maritime information for the benefit of Lloyd's and of the shipping community generally?—

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I think in view of the very wide interests involved in shipping generally—when you come to think that the whole trade of the country is dependent on it either directly or indirectly—it seems to me an obvious thing that every facility should be given for obtaining such information.

Wireless Telegraphy: Danger of, to light stations in time of war is inconsiderable.

3579. It was suggested to us the other day by Captain Tizard, on behalf of the Admiralty, that any lighthouse station equipped with the Marconi apparatus would be liable to be destroyed in time of war; at least so I understood him?—Of course, in war anything is possible, and we have known, even in the most recent wars, of acts of what you might term vandalism being committed, but I think it would be looked upon as a crime to destroy any lightship in war or any lighthouse, as I think it is likely that even belligerent countries would keep their lights showing for the benefit of the commerce of the world.

3580. Speaking as Secretary of Lloyd's, you do not regard that as a very serious danger?—No, I do not, and I think if there were such a possibility, which would assuredly be known beforehand, it would be an easy matter for the Government to take away the wireless equipment from lighthouses if they considered that that was the dangerous factor.

Maratime Intelligence Existing arrangement for obtaining, from light-stations,

3581. Now, apart from any legal obligation which might conceivably be imposed upon Lighthouse Authorities by future legislation, you have at present arrangements with the Lighthouse Authorities for performing some of these functions which you would like to have imposed upon them as duties?—Yes; through the courtesy of the Irish Lights Board, our own Trinity House, and the Northern Lights Board, we have made arrangements at three lighthouses, the Smalls, the Tuskar, and the Fastnet, and also by the courtesy of the Northern Lights Board we are now installing wireless telegraphy at the Butt of Lewis Lighthouse and the lighthouse on Flannan Island, about forty miles to the westward of the Butt of Lewis.

3582. Those arrangements are only temporary?—Those arrangements are only by the courtesy of the respective Lights Boards. But we feel that the position is rather an insecure one from our point of view, and that we are only there as a matter of courtesy, and that if there was any friction, through the lightkeepers feeling that it was outside their proper functions, the thing would be stopped, or if there were too many complaints from shipowners of not receiving their signals correctly; so that we feel that the position is a very delicate one, and ought to be made more secure.

3583. Now supposing that the Lighthouse Authorities considered that those duties could not be carried out satisfactorily by the lighthouse keepers; supposing that was the result of the temporary experiment which they have now undertaken, what would be the position?—I am afraid the position would be a bad one for Lloyd's. We could do nothing beyond asking as a favour that they should reconsider the position. But I think it would be a great loss to trade; shipowners might suffer very severely through want of intelligence.

3584. Would you suggest that Lloyd's should have a right to establish a station themselves on these lighthouses?—I do not quite understand that.

3585. Take, for instance, the Fastnet; I think if I remember right, there was an actual proposal that Lloyd's should have an installation there and work it themselves?—Yes; as a matter of fact at the Fastnet we have an installation, but, I think, to bring two separate elements like that into close daily communication, and to live together in confined quarters, would be bound to lead to friction. I think the thing might very well be arranged for the lighthouse keepers to supply the information and to work whatever instruments were installed. That is done now, and, so far as I can see at present, it is working satisfactorily. At the Fastnet, the Tuskar, and the Smalls the lightkeepers are taking signals from passing ships, and in the case of the Fastnet they are working the wireless telegraphy for us. We sent one of our operators there to instruct them, and it is now going on satisfactorily.

and Arrangements for reporting of casualties.

3586. Do you draw a distinction between the reporting of maritime information and the reporting of casualties? I see you refer in one of the paragraphs of your *précis* to the reporting of casualties?—Yes, because now in some of these outlying lighthouses, where we have not got actual arrangements for ships reporting themselves, the Trinity House have kindly arranged that any casualties that come to the knowledge of the lightkeepers should be transmitted to us at once. Of course, casualties are the most important part of maritime intelligence, because it is a prevention of fraud. It is easy to understand that if one or two people by some chance knew of a casualty, frauds might be committed in the way of reinsurance and so on, which would have a very bad effect, not only actually, but also morally on the reputation of British commerce, and those engaged in marine insurance in particular.

3587. And I understand that casualties are reported not merely from the lighthouses and lightvessels enumerated here, but from all lighthouses and all lightvessels which have communication with the shore?—Yes, that is so.

Lloyd's: Representation of, on Advisory Committee.

3588. In the last paragraph of your *précis* you suggest that Lloyd's should be represented on the Lighthouse Administration of the United Kingdom. I think Lloyd's are already represented upon the Advisory Committee, are they not?—My predecessor, Sir Henry Hozier, was, and is still upon that Committee, although he has vacated his position as Secretary of Lloyd's. I understand that that appointment is to great extent a personal appointment, as he still retains it; but I do not know all the ins and outs of the matter.

Representation of, on Lighthouse Authorities advocated.

3589. Is this suggestion part of a considered scheme for the reform of the constitution of the Lighthouse Authorities, because it implies a reform of the constitution of the Lighthouse Authorities, you see?—I think the Committee of Lloyd's hardly like to put forward any suggestion for the reform of Lighthouse Authorities, because it is not a matter that affects them directly as underwriters and insurance brokers in the same way that it affects shipowners. Shipowners naturally feel that they ought to have a great deal to say to the matter on account of the light dues, but Lloyd's is in a different position, and I think that they would not put forward any suggestion that the administration should be altered.

3590. This merely means, in short, that if a representative element were introduced into the constitution of the Lighthouse Authorities, you think Lloyd's would have a claim to be considered in the matter?—That is so, Sir. If I might add to that, I think Lloyd's would like to point out how much the interests of the whole trade of the country depend on this maritime intelligence, and it is therefore an important factor that Lloyd's, as representing this maritime intelligence, should have some voice in the administration of the lighthouses.

Object of incorporation of,

3591. (*Colonel Herbert.*) I should like to ask you one or two questions. Lloyd's is incorporated, I understand, for the express purpose of providing this intelligence?—Partly for the purpose of providing the intelligence, and also to make the members a corporate body so that they can act together for their mutual benefit. If I might explain, the underwriters at Lloyd's, and the brokers—in fact, all the members of Lloyd's—do their business independently, but they join together as a body to protect and further their joint interests.

3592. I see; then the Act of Incorporation is really to further private interests?—Not strictly so, because the whole commerce of the United Kingdom, of the Empire, is dependent on marine insurance. If there was no marine insurance, the commerce would hardly be able to be carried on. It all hangs on that, and marine insurance, owing to the very large sums that have to be insured, has always been a large feature. The stability of marine insurance depends upon the risks being divided up among a very large number of people. If few people take large risks, they would very soon become bankrupt; they could not stand it, and so the custom of these underwriters is to divide the risks among themselves in the small quantities, and then for their mutual protection to be joined as one large body.

3593. Yes, but the Act of Incorporation practically confers the privilege on a number of persons who otherwise would be carrying on their business individually, by making them a corporate body?—Yes, that is so, but unless they did join together their individual business would be impossible. A single underwriter, and even an insurance company, could hardly carry on the large business that Lloyd's does in having agents all over the world, and the large system of intelligence that they have. It could hardly be performed, and is necessary for their protection. The whole sys-

tem of marine insurance depends upon this intelligence, and on this protection, otherwise they would be so robbed all over the world by claims, that they could not carry on their business. I think that is a vital thing.

3594. I think that is going a little bit further than I put it; that your whole existence, then, depends upon your Act of Incorporation?—I will not say that it depends exactly on the Act of Incorporation, because the corporation is of comparatively modern date, whereas the coming together of the underwriters as a society, and forming the society of Lloyd's, is a very old institution, I daresay getting on for 250 or 300 years old.

3595. The point I am coming to is this: that in putting forward a claim to a right as a corporate body of individuals, who derive benefit from their corporation, you are proposing to throw upon a public body that which you have undertaken to do as a private corporate body?—I would hardly put it that way; I would not say that it is so much for the benefit of the individual as the necessity for the existence of the individual, and I say that it is a benefit to the whole maritime commerce of the Empire.

3596. There is no question about the benefit to commerce or the good system of intelligence, but what I am going on is this: that arising out of the commerce of the Empire there are benefits derived from individuals who are members of the Corporation of Lloyd's, and who have derived those benefits through their Act of Incorporation?—The benefits that we ask in that direction are a very small matter, compared to the huge stake that the country has in the marine insurance. It is not as if you were giving a special advantage to one body of people; I consider that you would be doing something that is necessary as an important factor in the stability of the commerce of the Empire.

3597. Yes, but at the same time the fact I think remains, and I do not think you have contraverted it—you probably will admit it—that they would be throwing upon a body which would depend entirely upon the community and upon the taxes made from the community, a duty which you at present are obliged to do on your own account as a private corporation trading body?—I think, Sir, with all due deference, that the letter of your statement is absolutely correct, but I venture to think that the spirit of your statement hardly conveys a correct impression.

3598. The spirit of my question is a perfectly friendly one?—I quite understand your point of view; you are quite right to press me on that point; I only want to say, written down your statement would make it appear that it was merely a matter of private advantage to the underwriters. It is not that they get any immediate or direct gain out of that; it merely helps them to carry on this business which is necessary for the whole commerce of the Empire, and as far as the underwriters' direct gain is concerned I am afraid a great many more of them lose money than make it over the insurance.

3599. You must excuse the military habit which makes me put things rather directly?—Yes, certainly.

3600. I think it is an important point to have recorded in a clear manner?—Most important.

Maritime Intelligence: Importance of system of,

3600a. That is the only object of my question?—I do not wish to traverse that in any way; I only want to put my view. It is my duty to impress upon the Commission that it is not such a personal matter as that to the underwriters, that it is more for the benefit of trade in general, and that if you do not get this information at the earliest hand the whole trade may suffer, because you will have fraud at once. One man may have intelligenge and go on reinsuring when he knows all the time that the ship has gone down. And that is most important, because immediately you have that sort of thing going on it disturbs the confidence that there should be in a large Corporation like Lloyd's, and it is a very disturbing thing for commerce in general.

Legal right to obtain, from light-stations advocated.

3601. My only reason for putting this very clearly is that I see you state here that the privileges that you at present enjoy have been granted as a temporary measure?—Yes, a temporary measure. We feel that the situation, as far as we are concerned, is a precarious one, and that it has to be handled most delicately. We feel that if at any time it suited any of these lighthouse keepers to give trouble and make difficulties and say they could not attend to their lights the whole thing would be stopped.

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3602. At the same time you will see there is a great difference between a privilege granted in such a manner as a temporary measure and a right imposed upon a public body depending upon the taxation of the country?—I undoubtedly admit that, but as regards the taxation I think it would impose a very nominal addition to the taxation of the country, and I think it quite possible, if a point were made of that, that Lloyd's might contribute something towards the extra cost.

Lloyd's: Assistance to Government rendered by,

3603. You think that Lloyd's might enter into an arrangement with the Government, by means of which it would pay a certain proportion of the cost; is that what you mean?—I cannot of course pledge the Committee of Lloyd's. If they were driven into a corner and the Government thought it a very important point, I think it is possible that Lloyd's would do that sooner than not have the right, but unless the Government felt very strongly that they ought to do so it would not be a fair thing, because the Government make use very largely of Lloyd's, especially the Admiralty. We are continually being asked for information. Very frequently we send out to our agents abroad for information they want. I suppose there is hardly a day passes that we do not get a telephonic message from the Admiralty about something, sometimes asking us to find out information and so on, and we supply them with a tremendous lot of information, therefore I think that unless it was really a charge that would be appreciable to the Government it would not be a fair or proper thing for the Government to ask Lloyd's to subscribe, because my own view is that it would want a very small addition to the present organisation and only a few very simple arrangements to arrange for these signals to be made from lightships and lightvessels.

3604. In fact, the Admiralty has made use of you as a very convenient form of devolution?—Yes.

3605. There is one more question I would like to put to you. Would you go a little further than you did just now and say this much, on behalf of Lloyd's, that you consider that Lloyd's might assume a certain part of the charge which would be necessary under a new system of Lighting Authorities provided that it received representation on the body which took over that Lighting Authority, if they were officially represented?—No; I am afraid I could not do that, because Lloyd's has very heavy expenses, and the funds are naturally limited, and I think it would be doubtful if we could contribute materially to the lighthouse system in general. What I meant to have suggested was that perhaps in a few of the most important lightvessels, where we found ourselves absolutely driven to ask for information we might share the expense, but we feel that it would not be treating Lloyd's well and that it would not be the best thing for the country to put us in that position.

3606. I understood you that if they were driven into a corner you thought you would have to contribute?—Yes.

3607. Well, I propose to make that corner more comfortable by suggesting as a compensation that you should have representation?—As a compensation?

3608. Yes; that was the suggestion I made?—Well, I would not look upon representation as any compensation for money that we paid, because it would certainly give us a great deal more work and trouble, and already our work at the present moment is terrific, looking after all the signal stations all over the world, and the large number of agents. The work there is enormous, so we should not look upon it as any benefit to be represented, or certainly not a benefit that we would pay for. We think that for their own sakes it would be a convenience to the Lighthouse Boards, provided that the principle was accepted, that intelligence should be sent from these lighthouses and lightvessels, that Lloyd's representatives should be either on the Board or on an Advisory Committee, to say what was wanted and to assist matters as much as possible.

Representation of, on Lighthouse Authorities advocated

3609. (*Chairman.*) May I ask this question: have Lloyd's, so far, experienced any difficulty in inducing the Lighthouse Authorities to meet their wishes in the matter of the conveyance of maritime information?—I have only been Secretary of Lloyd's a matter of four or five months now, and the arrangements were completed by my predecessor some time, I think, about a year ago, but from what I can gather there

Relation of, to Lighthouse Boards is unsatisfactory.

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has been considerable difficulty, and it is only as a favour that these privileges have been granted to us, and as I have already stated I feel that the position is a very delicate one and one that wants great care in handling.

3610. You do not know the character of the objections raised by the Lighthouse Authorities at that time in the course of the negotiations?—No, I do not know, but I think it is easy to understand that they feel that if their lighthouse keepers fail in their duty at any time as regards their fog-signals or their lights, they might turn round and say, "We were so occupied making signals to ships that we could not attend to these other duties."

3611. (*Mr. Ennis.*) Do I correctly assume that Lloyd's is primarily a big association of underwriters?—Primarily a big association of underwriters. But nearly all insurance brokers are also members.

3612. Quite so; but in any case it is in the interests of underwriting and insurance that Lloyd's originally came into existence. I mean that Lloyd's represents the underwriting of the United Kingdom?—Yes, and the marine insurance brokers as well.

Importance of, to British Commerce.

3613. And the operations of Lloyd's must necessarily be of an enormous character seeing that the total export and import trade of the country during the last recorded year is, I believe I am correct in saying, between £900,000,000 and £1,000,000,000?—Yes.

3614. Taking the imports at c.i.f. values and the exports at f.o.b. values?—Yes.

3615. And if you add freight to the export, the total value of the exports and imports of the United Kingdom will be very considerably over £1,000,000,000?—That is so, Sir; and, as I already said, the whole commerce of the Empire is dependent for marine insurance largely on Lloyd's. Of course, there are outside marine insurance companies who compete with the underwriters of Lloyd's to a great extent, but those outside marine insurance companies also subscribe to Lloyd's for their maritime intelligence, and they depend also upon this maritime intelligence. But as regards the volume of insurance done at Lloyd's, that has nothing to do with the corporation as a body; that is effected by the underwriters in their individual capacities.

3616. Quite so; but the cost of your intelligence must be borne by the funds of Lloyd's?—That is so.

3617. And the funds of Lloyd's are subscribed by the insurance community?—Yes, that is so.

3618. Consequently, the cost being so heavy, the insurance operations must be of enormous magnitude to induce those interested in insurance to subscribe to such a large extent for the protection of their interests and the protection of shipowners generally?—Yes, that is so.

3619. And as the entire trade of the United Kingdom must necessarily be sea-borne outwards and inwards, and assuming that for a very large proportion of it the risks are covered by insurance, it follows the operations at Lloyd's must be of enormous importance to the country generally?—Yes, that is so.

3620. And I take it it also follows that if the intelligence department which you have established were suddenly withdrawn to-morrow, the inconvenience and the dislocation of trade caused to the shipping community generally would be enormous?—I would even go further than that, and say that it would be more than an inconvenience. I have no doubt that it would bring to a standstill a large proportion of British trade, because underwriters would not insure unless they were protected by a system of maritime intelligence and a system of agents in all parts of the world, and unless shipowners could insure, very few of them, except perhaps the large companies, could afford to send their ships to sea.

3621. Therefore I take it that whilst primarily Lloyd's establish their very efficient system of intelligence for the benefit of the members of their association, indirectly they enormously benefit the shipping community as well?—They render the shipping trade possible.

3622. Yes, quite so; they confer enormous advantages upon the shipping trade, although the service is primarily undertaken on their own behalf?—I would go further; I would say they confer benefits upon the shipping trade in two ways. In the first place, as I have already said, very few shipowners could afford to send their ships to sea at all unless they were insured. And the second way in which they confer benefits on shipowners is that shipowners make large use of Lloyd's signal stations to report the movements of their ships in all parts of the world, to get early information of their coming, so that they can make preparations, and also to telegraph instructions to them at different parts of the world, so that a ship can be ordered to call at a certain signalling station for orders, and then, according to the state of markets in various places, a shipowner can telegraph out orders to his ship, which are signalled to her.

3623. As I say, the cessation of the services of Lloyd's would be a serious damage to the shipping community. Now as regards the cost of lighting the coast, the matter which this Commission deals with, the incidence of that cost, although it does not come within the terms of our Reference, falls upon the shipping community at present, as a matter of fact?—I believe that is so.

3624. And therefore any service undertaken for the shipping community, or paid for rather by the shipping community, is not a tax that falls upon the general public?—Not directly.

3625. Not directly upon the general public; it falls upon the shipping community primarily?—Primarily.

3626. And therefore I take it your contention on behalf of Lloyd's is, that in return for the enormous service which you render to the shipping community by means of this intelligence department and otherwise, you consider it would be a very small reciprocal arrangement on their part for the Lighthouse Authorities, whose cost is borne by the shipping community, to provide you with facilities at their stations for supplying this intelligence?—No, that is not quite what I meant. As you say the light dues apparently fall directly on the shipowners, but I imagine that they actually fall and are generally borne by the consumer, who pays the freight.

3627. Eventually they must be?—Eventually, yes.

3628. But in the first instance they are borne by the shipping community?—In the first instance they are borne by the shipping community; I do not quite see your point.

3629. My point is that you confer very large advantages upon the shipping community?—Yes.

3630. And that as the shipping community pay the cost of lighting the coasts it would be a very small return for the Lighthouse Authorities to give to you the facilities you seek at Lloyd's for supplying intelligence from the lightvessels and the lighthouses round the coast?—I rather had it in my mind, when suggesting that those privileges should be given permanently, that shipowners would be eventually relieved of this cost, and therefore my view was that it would fall on the taxpayer. If there was any extra cost, I think I could hardly suggest that it should be put on the shipowners, because I think the feeling of Lloyd's would be that it is not an expense that should be borne primarily by the shipowner, but rather by the taxpayer.

Maritime Intelligence: Cost of obtaining,

3631. Have you any information as to whether there is an additional expense involved? You, I take it, have installed these appliances on the Fastnet and the other places at your cost?—We have installed these appliances, and, as regards the additional cost, I may say that, by an arrangement with these Boards, we do pay a small sum to the lightkeepers for the extra work.

3632. In that event, practically so far no extra cost has fallen on the Lighthouse Authority by reason of your operations?—No, certainly not, no extra cost.

3633. The only point that could be made would be the one you suggest that the lightkeepers might claim that their ordinary duties were interfered with?—Yes.

3634. (*Chairman.*) Surely the cost is a very small matter; the whole question is one of efficiency. There might conceivably be a difficulty in a small place like the Fastnet to find sufficient accommodation for all those who would be required to work an important wireless installation. Does not the question really resolve itself into that?—It is very small, so long as we use only a few as at present; but I point out that our system of signal stations is necessarily a changing one, and it is possible that in the future it might be necessary to get intelligence from a great many more lightships and lighthouses. If we multiply those the expense would mount up very largely, and might ultimately become prohibitive, and such as to prevent

Lloyd's making those arrangements in as many cases as are absolutely for the advantage of commerce.

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Liability for errors in transmission of.

3634a. (*Mr. Ennis.*) You do not suggest, I take it, that if you were provided with statutory authority to establish these installations on lighthouses and light-ships, that authority would carry with it a liability on the Lighthouse Authorities or on the individual in the event of an error in the transmission of signals?—No.

3635. I mean, suppose a serious loss was incurred through error, you do not suggest that a financial liability would rest upon the people in the Lighthouse Service by reason of the error?—Are you referring now to a Government administration or to a corporate administration.

3636. Well, whatever form?—I think that would be easily arranged for, in the same way as the Post Office now incur no liability for mistakes in telegrams.

3637. Quite so; that is my suggestion; you do not claim any liability?—No, I think certainly not; that would be an impossible position.

Wireless Telegraphy: Danger to light-stations using in time of war is inconsiderable.

3638. Then you have said as to the danger in time of war that lighthouses or lightvessels might be interfered with, provided they were fitted with wireless installations. You described that as what you would call an act of vandalism, and you suggest, I take it, that provision should be made by international arrangement—the Hague Conference—or something of that kind—that those aids to navigation should be safeguarded from attack in time of war by International agreement?—I think certainly that would be an advantage.

3639. You look upon it in time of war—modern warfare—the trade of the world is not brought to a standstill by reason of a conflict between two powers, and that there is a large neutral commerce which would be endangered, and the lives of passengers would also be endangered, by an interference with the lighting arrangements of the coast of any power?—I do not think any belligerent would be so very foolish as to interfere with the enemies' lighthouses or lightvessels, because it is more to the advantage of our enemies than ourselves that these aids to navigation should be kept working in war time. It helps them to approach our coasts. An enemy's ship watching the coast would have great difficulty in keeping out of danger unless our lights were burning, and so I think it would be cutting their own throats to attack our lighthouses.

Lloyd's: Representation of, on Lighthouse Authorities advocated.

3640. Well, your contention is with regard to any change in the constitution of the Lighthouse Authorities that Lloyd's should have a representation on the reconstituted authority?—That is my view with the object of making any arrangement of that sort work smoothly.

3641. And you hold that representation on the Advisory Committee, which possesses no legal status—the Advisory Committee is simply a body which is consulted by the Authorities, but which has no legal status—would not in your opinion quite cover your claim. And do I understand that your contention would be that as Lloyd's represent the underwriting class of the Kingdom, and as the underwriters take the majority of the risks of sea-borne commerce, that they are more interested in fact in the efficiency of the lighting arrangements of the coasts than the shipowners themselves, because presumably the shipowner whose vessel is fully covered does not, as a matter of fact, take the risk of navigation that the underwriters at Lloyd's do, and therefore whilst a body consisting purely of shipowners might possibly be inclined to starve a lighthouse administration, Lloyd's would not have a tendency in that direction, because it would be their direct interest to have the efficiency of the service at its maximum point?—That is so. The members of Lloyd's most certainly have a direct interest in anything that tends to the safety of shipping, but I would not say that they have quite the same direct interest as shipowners, because if they find that a certain coast is dangerous or a certain voyage is a dangerous one they raise the rates of their premiums, and protect themselves in that way.

3642. Quite so, but if they raise the rates of premiums, it militates against the trade of the United Kingdom, as compared with foreign countries; is not that so?—Most undoubtedly, it militates against the whole trade of the Empire.

3643. You have spoken as to a matter which does not really come within the purview of this Commission, as to the desire of the shipowning community to be relieved of the cost of this service. As a matter of fact, would not such relief from the cost of this service mean a bonus to the foreigner of £150,000 or £200,000 a year?—I have not studied the question from the economic point of view, but possibly you might charge the foreigners light dues, and not British ships.

(*Chairman.*) That hardly comes within our province.

3644. (*Mr. Ennis.*) And then you claim that you should have representation on all reconstituted Lighthouse Authorities?—That is my idea.

Rockall: Undesirable at present as a signal-station.

3645. I will just ask one other question: you speak of using outlying stations, having to get further and further from your base, on account of the increasing speed of ocean steamships. Does Rockall lie in the track of any great ocean line?—Yes, it does.

3646. Would Rockall be useful in the establishment of such a station?—It would be useful, but I believe it is such a small rock that unless there were a lighthouse put there it would be no use to us, because ships would avoid it. There was a large liner foundered there a few years ago, but we are taking the Flannan Islands, which lie about 40 miles to the westward of the Butt of Lewis, where they are at this moment just installing a Marconi apparatus.

3647. When you spoke of increasing distances, it occurred to me that Rockall, which is about 200 miles off the coast of Ireland, within easy reach of wireless operations, would be even further afield?—If there was a lighthouse there it would be useful to us because ships would make it, but as there is no lighthouse they avoid it.

Maritime Intelligence: Work involved by receiving, at light stations.

3647a. (*Admiral Henderson.*) Can you give the Commission any idea of the amount of work which is involved on such places as the Smalls, the Fastnet, and the Tuskar, on which you have wireless installations; you have wireless installations at all of them?—Only at the Fastnet, not at the Smalls and Tuskar; we do it by flag signal; ships make them in passing. I am not quite sure whether the Post Office has the wireless system at the Smalls, but I could find that out, Sir.

3648. Have you any idea as to the amount of work which is involved?—I can obtain the statistics.

3649. The number of messages sent?—I can have the figures got out for all those places, and I will submit them to the Commission. But I would state that the arrangement is a new one, and the shipowners have hardly got into it yet. (*See table below.*)

Wireless Telegraphy: Danger to light-stations using, in war time is inconsiderable.

3650. You stated just now that some international arrangement could be made in the case of outlying lighthouses or vessels having signal stations. Supposing that was not done, how could the enemy know that you were not making use of them for warlike purposes?—Of course they could never be certain, they could never tell, but I do not think they would be so foolish; they reap more benefit by the lighthouses remaining intact; they could come in and sight them at night, and in the daytime keep away altogether. They would find them far more useful standing than demolished.

3651. Yes, but one of the great objects in all warfare is the destruction of means of communication and

Lighthouse.	Period.	Day Reports.	Night Reports.	Total.	No. of Reports telegraphed to Owners.
Fastnet	12 months from 1st January 1906 to 31st December 1906.	293	131	424	§ 362
Smalls	4 months from *30th August 1906 to 31st December 1906.	50	†	50	§ 33
Tuskar	2¾ months from *10th October 1906 to 31st December 1906.	34	†	34	§ 10

* Date signalling was commenced at this lighthouse. † Night reports are not taken at these stations.
§ This number is included in the foregoing total.

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intelligence?—That is so, but what is more important, I imagine, but of course it is only an opinion, is the means of approaching your enemy's coasts, and you cannot approach them if there are no lights.

3652. No, but you might want to get in unobserved?—In the day-time?

3653. Well, at any time?—That could be arranged; you could land a guard on the lighthouse to take temporary charge of it.

3654. Have you any idea of any prospective increase in the number of stations that you would require? Have you any list put down of proposals where you would wish to instal stations in lighthouses?—None at present, but there are a number of lightvessels in the North Sea, which, in view of the large trade in the North Sea, and in view of the large number of casualties there, would be obviously useful to Lloyd's.

3655. Have you any suggestions to put forward as to any reorganisation of the Lighthouse Authorities, as to questions which have cropped up before you at all?—I think that is hardly a question in which the Committee of Lloyd's would like to interfere. They feel that they have a certain amount of interest in lighthouses—that they are properly kept up, and put in proper places, and that there is a proper system of buoyage, and in fact that everything is done for the safety of ships round the coasts; but as long as that is done properly, they feel that it is hardly within their province to suggest what the authority should be.

Efficiency of lighting of coasts of United Kingdom.

3656. (*Chairman.*) You have, as a matter of fact, no complaint to make as to the manner in which the coast is lighted and marked?—No. Speaking generally, of course, the lighting of the coast is a matter on which there is no finality. Lately I have been receiving some very strong representations from a prominent merchant at Belfast with regard to the lighting of the coast of County Down. There have been a large number of wrecks there of late, and he is anxious that we should make representations to have that coast better lit, as there are very strong and variable tides there; but otherwise, so far as I know, I think the work seems very good, and to be continually improving. I think our own Trinity House is particularly good.

3657. (*Sir Frank Adam.*) I would just ask one question; almost all I had to say was anticipated. You speak of the efficiency of the work, except this particular part of the coast, where some representations have been made?—I do not say he has made out his case; I only quote that as an instance that has come to my mind for the moment.

3658. Have you any opinion in regard to the economy; is efficiency combined with economy, as far as your own opinion goes?—I have no knowledge of that matter.

Lloyd's signal-stations: Arrangements as to, with foreign countries.

3659. (*Colonel Herbert.*) Have you any arrangements similar to those you have described with foreign lighting authorities?—Not with foreign lighthouse authorities, but there are signal stations all over the world which have been established at the instigation of Lloyd's; a few of them are actually worked by our own men, but generally we prefer, if possible, to make arrangements with the foreign Governments; practically all are with the foreign Governments.

3660. Because in most cases the foreign lighting authorities are foreign Governments, but you do not deal with them?—No; I have no knowledge at the moment of any foreign lighthouses, but I will inquire. I think they are all independent of lighthouses. As a matter of fact, at Zebrugge in Belgium, I think the signalman there does work on a lighthouse, but that is at the entrance to a harbour. I will make inquiries, and report to the Commission, if I may.

3661. (*Mr. Ennis.*) You spoke of the lighting of the County Down coast?—Yes.

3662. May I ask, do you regard that claim made by this gentleman that you referred to as one that is deserving of investigation?—As I say, I have only heard his side; I have no doubt there is a great deal to be said on the other side; I only mentioned it as an instance. I was asked if all the lighting round the coast was satisfactory; I mentioned it as an instance, that there would probably always be complaints, and that there was no finality about the matter.

Fog-signals; Inefficiency of fog-gong.

3663. To take the case of a coast on which there is a number of sand banks and lightvessels, would you consider that it was a thoroughly efficient service if you had a stretch of nearly 100 nautical miles, in which none of the lightvessels were provided with anything more efficient than a fog-gong? A fog-gong, I take it, you do not consider satisfactory?—You mean on deck, not an under-water gong?

3664. No, a fog-gong?—No, because I myself have had experience of that in command of ships. It is a curious thing that in a fog sometimes you cannot hear a gong or a foghorn until you are close to it; at other times you hear it at long distances. The conveyance of sound in a fog is a most uncertain thing, and my own view is that the only certain thing is a submarine apparatus, which, I think, would go to a large extent to mitigate the danger in a fog.

Efficiency of submarine bell.

3664a. Is it within the knowledge of Lloyd's that submarine bells have been in use in Canadian and American waters for more than the past two years, and that in this country they are only in the experimental stage?—We have had reports, and we are watching the matter closely.

3665. Is it true that there is installed by a Harbour Authority in this country a submarine bell? Is there a submarine bell in the Formby Channel, do you know?—In the Formby Channel off Liverpool?

3666. Yes?—I have heard that there is one there, but I cannot tell you offhand what the authorities are.

3667. I have heard that there is such an installation there. That, I take it, would be within the control of the Harbour Authority of the Port of Liverpool?—I should think it would be.

3668. As to the incidence of taxation, are you aware that the cost of lighting the port of London falls upon the General Lighthouse Authority?—No, I am afraid I have not gone into that matter.

3669. As distinct from all other Lighting Authorities in the kingdom?—No, I was not aware of that; it is a very interesting fact though.

Captain WENTWORTH S. WADE called in; and examined.

Captain W. S. Wade.

Mercantile Marine Service Association: Number of members of,

3670. (*Chairman.*) I understand you are a member of the Council of the Mercantile Marine Service Association?—Yes, Sir.

3671. This association represents the commanders and officers of the Mercantile Marine?—Yes, Sir.

3672. Can you tell us what proportion of officers in the Mercantile Marine belong to the association?—We have over 3,000 members, and then we are combined with the Scottish Shipowners' Association, and federated with the Hull and Sunderland.

3672a. So that the Commission may take it that you represent a very considerable section of officers of the Mercantile Marine generally?—I should say about 5,000.

3673. And are you here to speak on behalf of the association?—Yes.

3674. Will you tell us your own personal qualifications?—I have been a shipmaster since 1873, and I hold a foreign master's certificate.

3675. And you are now commander?—In the Waterford Steamship Company's service for 23 years. Before that I was for a considerable time in the foreign trade, and I hold five pilot's certificates for various districts on the coast.

3676. Have you made a special study of lights and marks?—I have, yes. It is a theory I have been at for a number of years.

General Lighthouse Authorities: Instances of extravagant administration of,

3677. I understand from the *précis* which you have furnished to the Commission that you have got some suggestions to make as to the constitution of the Lighthouse Boards, but before we come to that, I should like to have your views on the efficiency and economy of the administration of the Lighthouse Authorities?—Well, we do not look upon the present administration of the Lighthouse Authorities as being either efficient or economical.

3678. Can you give definite instances in support of that view?—Yes; take, for instance, Beachy Head Lighthouse. It was formerly a lighthouse on the

Beachy Head Lighthouse.

cliff, but through certain representations which have been made, it was thought advisable, when the cliff was giving way, to place it on the foreshore lower down. It is an old saying amongst sailors, "Beachy Head in a fog." It was a lighthouse we never saw in a great deal of the weather we had about the coast, and they rebuilt it at the base of the cliff. Well, they built it as a rock lighthouse; of course, you understand what I mean by that—dovetailed and all put together to withstand any sea that might come along in an exposed rocky station. It cost over £60,000 to construct. Well, from our knowledge of the locality, we think that an efficient structure might have been put there for probably one-third of the money, and the balance saved to go towards giving us new works in other places where they are much needed.

3679. I quite understand that officers of the Mercantile Marine are favourably situated to form a judgment as to what lights are or are not required, but are they equally favourably situated to form a judgment as to how lighthouses should be constructed?—Well, we think for such a lighthouse as that, a lighthouse on screw piles and legs would withstand any sea that it would be subjected to there, and such a lighthouse could have been constructed at a very much less cost.

3680. Is that the result of any expert survey, or are you merely reproducing the impression that exists in the mercantile service?—That is the impression among us.

3681. Has your association ever discussed this question?—Yes, we have discussed the whole question as to cost. Of course, after the Mercantile Marine Fund was merged in the Treasury, and the lighthouse dues were placed as they had formerly been in the hands of the Board of Trade, a proviso was attached to it that they could not use them for any purpose other than that for which they were collected. After that took place, the cost of lighthouses, new works, and maintenance, increased enormously. I think, if my recollection serves me, in 1891, the estimated cost for that year was somewhere about £222,000.

3682. Are you speaking of maintenance?—Both maintenance and new works. The whole thing at that time was lumped into one lump sum. There was no Shipowners' Advisory Committee then, and that left a very large balance—it was somewhere between £400,000 and £500,000 the light dues amounted to at that time, which of course was appropriated to other purposes. That has all been done away with, but since that has been done away with, and since the dues are only expended on the purposes for which they are collected, we find that it has gone up as high as £500,000 a year.

Cost of light-vessels,

3683. But your charge of want of economy is merely based upon total amounts then?—Well, no; we take individual items. Now, you take lightships, for instance; you take the cost of a lightship at what many of these lightships have been returned as costing—£16,000. Many of us, along with being shipmasters, have had considerable practice and knowledge in ship construction, and we are not alone capable of supervising the construction, but we understand the principles of cost, and what a ship of a certain size and fitted for a certain service ought to cost. And when we come to see lightships of 100 feet long or less costing about £16,000, we know that it is excessive. That is our feeling. We know that, as traders, if we expended that amount of money on a vessel of that size, we could not make anything out of her; she would not pay at anything.

3684. Presumably the construction of these vessels is put out to tender?—Well, I do not exactly know how they proceed with it, Sir, but I can tell you that at the time one of those vessels about 100 feet long was costing this large amount, I had a contract for a steamer that was 212 feet long, by considerably greater beam and depth, with engines that would drive her 12½ knots, for £17,750.

3685. You have merely taken the size of the two vessels, and on that you base a statement that extravagant prices have been paid for these vessels?—Well, we think so; we think they are extravagant prices.

f light-eepers' wellings,

3686. Have you any other instances of extravagance to give us?—Now, take the lighthouses on the Kerry coast. It will be within your knowledge that they have brought the lightkeepers in from Territ and the Outer Skelligs; brought them ashore and provided houses for them. Those houses cost in the estimates £1,000 each; a lighthouse keeper's dwelling on the coast of Kerry, where labour is cheap and not difficult to obtain. I recollect at the time I was building some small houses that would be, in my opinion, quite good enough for a lighthouse keeper, in Bristol, and they cost me £250 each, and they were better fitted up, I think.

3687. Yes, but you have not, as a matter of fact, any experience of building cottages such as are required for lighthouses in the localities where accommodation for lighthouse keepers is required?—No, none of us have that.

3688. You are merely judging from your experience of building cottages in Bristol?—Yes, I lived for many years in Ireland, and I know fairly well what that class of property costs in Ireland—not exactly in that neighbourhood—but it is one of those things that we think ought to be called attention to, because we think that there is an unnecessary amount of money expended on many of these things that does not make for efficiency. Anything that makes for efficiency we feel ought to be done, but our experience in the Marine Service is that efficiency and economy go hand in hand. We have never been able to see much efficiency without there has been a reasonable economy attending it.

3689. You say with regard to the cost of construction of lighthouses, lightships, lighthouse tenders, fog-signal apparatus, lighthouse keepers' dwellings, and so forth, that in all of these very large savings might be effected, with just as much efficiency as at present, but it comes to this, does it not, that you are merely giving us your general impression? You have not had an opportunity of going into any of the details of expenditure?—Well, I recollect now, speaking of fog-signals, that on one occasion there was considerable discussion about the fog-signal on the Skerries, and a maker of these siren horns told me when we were discussing the matter that he could supply a fog-signal apparatus on the Skerries for £1,500, and he would guarantee that it could be heard as far as any fog-signal supplied at present to the Trinity House, and if it could not he would remove it. I believe that fog-signal on the Skerries cost about £4,000.

and of fog-signals.

3690. What you are relying upon then as regards fog-signals is the statement of a manufacturer of such signals, that if his apparatus were put up, it would be equally efficient and much cheaper than that which was actually used?—Yes, that was about what he said; and, personally, as far as my knowledge of mechanical matters goes, I think that the cost of these fog-signals on both our lightships and shore stations is excessive. I should not like to go to my employers and suggest that they should pay that money for such an apparatus. I think they would not agree with me; I do not think they would want me long.

3691. But you have not, as a matter of fact, had any experience in purchasing such apparatus, have you?—No, Sir, I have not. I know a patentee—a very able man—of foghorns, and at different times he has given me his views, which go to confirm my own a good deal in the matter.

3692. You say in your *précis* that up till recently it has been almost impossible to get any improvements undertaken?—That is so, Sir. I can speak from my own knowledge entirely on that point. Until the Mercantile Marine Fund Committee decided that the funds were to be at the disposal of the Treasury, and not the Board of Trade, and that the lighthouse dues, while in the hands of the Board of Trade, were not to be used for purposes other than they had been collected for, we had the greatest difficulty. I recollect in 1891 I made a report on the lighting and marking of the Bristol Channel, and it was submitted to all the Shipmasters' Associations in the Kingdom, and it was submitted to the Shipping Federation, and they all endorsed it; and it was submitted to the Board of Trade and to Trinity House, and I recollect our reply from Trinity House was that they had received it, and that they thought it was worthy of attention, and that they had appointed a committee to go on the spot and examine into the matter, and when the committee had reported they would let us know. And they did let us know, somewhat after this style: I do not pin myself to words, but they said the committee were practically in accord with the suggestions offered, but that owing to the Board of Trade refusing them funds they could not go on with the work. Now, Sir, that was in 1891; that was considerably before the Mercantile Marine Fund Committee was appointed, and since that Mercantile Marine Fund Committee has reported, and since the present administration of light dues for the

Want of efficiency in administration of,

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purposes for which they were collected has been in force, everyone of those improvements suggested then for the Bristol Channel have been carried out with most excellent results. And, in fact, they have done more; in two or three instances, other improvements that were not suggested have been carried out.

3693. But I think a few minutes ago, if I am not wrong you made it somewhat a matter of complaint against the Lighthouse Authorities that since 1898 the expenditure had been so much higher?—No, Sir, we do not complain of the expenditure; a man who does not find the money cannot really complain of people spending it. That is a question, I think, for the shipowners, not for us.

3694. But did you not urge, in proof of your view that there was extravagance in the administration of the Lighthouse Authorities—?—Yes.

3695. Did you not, in proof of this, point to the increase that had taken place in the expenditure since 1898?—I do not say that; expenditure may possibly have occurred, and no extravagance taken place, but, at the same time, taking items into account, we say that in our opinion extravagance has taken place. I do not know whether I am right in saying so, but I believe it is a fact. I know on one occasion an Elder Brother was asked about a lightship, and so little did he know about lightships that his answer was that she was between 200ft. and 300ft. long.

3696. Anyway, I suppose we may take it from you that the increase in expenditure which occurred about the year 1898, whatever the cause of that increase was, has at all events been accompanied by increased efficiency?—Yes, undoubtedly; that is our feeling. We cannot find fault with the increased expenditure. The only reason we do find fault with what we might term waste is that it tends to re-act on the Shipowners' Advisory Committee, and make them oppose new works that are really advantageous to us, and that we would like to have done, but through apparent extravagance they cannot see their way to sanction.

General Lighthouse Authorities: Suggestions for reconstitution of,

3697. Now, let us pass from that to the question of the proposed reforms in the constitution of the Lighthouse Boards. You have, I think, some suggestions to make on that point?—Yes, Sir, we have two. The first is that if the light dues are to be collected from shipowners, as at present, then the Boards should be reconstructed as follows:—Trinity House should be brought more up to date by the open election of Elder Brethren, instead of being co-opted as at present, and that an age limit should be fixed. We suggest 65 as the age limit which should be adopted, the new members to be elected by those who pay the light dues.

3698. Yes; and as regards the Irish and Scotch Boards?—We suggest that they should be elected in a similar manner, and in all cases care should be taken to select the members of the various Boards from all over the country; men from different ports in the country, we mean to convey, who would have a special knowledge of the district.

3699. Well now, with regard to that proposal, there are one or two questions that I should like to put to you. You suggest that Trinity House should be brought up to date by the open election of the Elder Brethren, and that the new members should be elected by those who pay the light dues—that is, by the shipowners. In the course of time, therefore, all the members of the Trinity House who perform the functions of Lighthouse Authorities would have been elected by the shipowners?—Quite so, Sir.

3700. Would you confine the choice of the shipowners to the Younger Brethren? Is it your idea that the electors, the persons who elect the Lighthouse Authorities, should be the shipowners, but that the persons appointed should be shipmasters who are already Younger Brethren of the Trinity House?—Well, I take it that the Younger Brethren are appointed by the Elder Brethren, and practically you would not do away with co-opting of members as Elder Brethren of the Trinity House by that course.

3701. Well, you would do away with co-opting by that course. I am only trying to get at your plan, because it does not seem to me that you have thought it out. You see the shipowners are to elect, but are they to elect anybody they please?—Precisely.

3702. Then that would mean the entire destruction of Trinity House as a Lighthouse Authority; Trinity House as a Lighthouse Authority would cease to exist?—Well, unfortunately a great many institutions of this kind have been destroyed at various periods.

3703. I only wish to point out that it would mean bringing Trinity House more than up to date; it would mean the entire destruction of Trinity House as a Lighthouse Authority, and the substitution of a new one?—We do not think so. We think you would bring in fresh blood, and Trinity House would still exist; the only thing would be that there would be a different method of electing the Elder Brethren. We do not look upon the present method of electing Elder Brethren as being the best that could be adopted.

3704. Do you seriously suggest that Trinity House should continue as a Corporation, but that persons in authority at Trinity House should be all elected by shipowners? Surely that is not a practical proposal?—The members of Trinity House who administer the shipowners' money undoubtedly ought to be elected.

3705. I am now speaking of Trinity House as a Lighthouse Authority; would it not be better to say at once that Trinity House shall no longer be a Lighthouse Authority, but that the Lighthouse Authority shall be elected by the shipowners?—We do not speak of it in that way, but now that you mention it I certainly think that if they are going to spend the shipowners' money on the lights, there is very good reason why the shipowners should have a voice in selecting the men, and seeing into the qualifications of the men who spend the money.

3706. Do you not think that, if the shipowners were to elect the Lighthouse Authorities, in all probability they would elect shipowners to represent them?—No, Sir, we think that they would just go on and elect shipmasters. Of course, if an alteration were made, a proviso could be attached to it, preventing other than shipmasters being elected to Trinity House, and we cannot see that any injustice would be done to Trinity House; in fact our feeling towards Trinity House is a very kindly one, for we have always received at their hands every consideration, and we feel that any grievances that we have really had have not emanated from Trinity House. Our work with them has been of a most satisfactory character; that is our feeling. But at the same time we cannot blind ourselves to the fact that co-opting members by a Board is not altogether the best way of getting the best men on that Board. We think that Trinity House should be representative of the country, and we do not feel that it is.

3707. Now, passing to the Irish and Scotch Boards, do you think that they also should be elected by the shipowners?—We do, Sir.

3708. But apparently you would place upon the shipowners some restriction as to the persons whom they should select?—They could select the Board, but we think that a Board of that sort ought to have a nautical element on it that would be able to say of their own knowledge what was required for the district comprised.

3709. Let us pass on to your second proposal?—That if the light dues are to become a charge on the Consolidated Fund, then Trinity House should have control of all lighthouses in the United Kingdom, first having been brought up to date as before mentioned, with a first-class superintendent in Scotland, Ireland, and England.

3710. By a charge on the Consolidated Fund, I suppose you mean a charge on the National Exchequer?—Quite so, Sir.

3711. Why, in case the expenditure on lights was to become a charge on the National Exchequer, do you consider that it would be better to do away with the Scotch and Irish Boards and keep Trinity House?—Well, for the reasons I gave before. We think that an amended Trinity House, an improved Trinity House, would be the best Board. In my own opinion I feel very confident of it, that Trinity House would be a proper authority to control the lighting and marking of our coasts.

3712. If it be a desirable thing to put Trinity House in sole charge, would you advocate that that should be done only if the cost were placed upon the Exchequer?—I take it that a certain control in any case would be maintained by the Treasury, either through the Board of Trade or some other Department of State, that a control would be kept on the Trinity House, to prevent them doing something that perhaps they might

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feel disposed to do, but which was not for the welfare of the country.

3713. I do not think I have made my question quite clear. You have put two proposals before us; one of them is a proposal which you think should be adopted if the incidence of the light dues remains as at present?—Yes.

3714. The other you think should be adopted if the cost is made a charge upon the Exchequer?—Yes.

3715. I want to know whether the two proposals which you put forward have any real connection respectively with the question whether the dues are paid as at present, or are placed upon the Exchequer?—You will note there that we say we are not very much concerned about the incidence of light dues; that it is a matter that more nearly concerns the people who provide the money—the shipowners—but we suggest these proposals with the view that, if the dues are abolished, certain things should be done, and our first one relates to where the dues are paid by the shipowner, and where we think the shipowner ought to have a voice in the spending of them, and the second is where they become a charge on the National Funds, and where the shipowners have no more right than anybody else connected with the sea to speak as to the administration of them.

3716. I should like you to explain to me, if you can, why it is that you think that to do away with the Irish and Scotch Authorities, and to place Trinity House in sole charge, would be a good thing if the cost was a charge upon the Exchequer, but not a good thing if the dues remain as at present?—Well, you see, you alter the thing. If they are a charge on the National Funds, you remove the shipowner at once, but if they are a charge on the shipowner, I take it he has a right to speak as to how those funds are expended; that is our view. But I think a little further down we make mention of that; that, although not immediately concerned in the question of light dues, the Association is in favour of the whole charge of lighting and marking the coasts being taken over by the Government.

3717. That seems to me a third proposal, which is not really in harmony with either of the other two?—Do you think not, Sir?—Well, it may be our blundering way of putting it. We cannot make much provision in that direction, but we think we know something about what we are talking of with regard to the practical side of the question, and that is the efficiency or otherwise of the marking and lighting of the coasts.

3718. If we are to take your third proposal, I understand what you would perhaps prefer is that the present Lighthouse Authorities should be done away with altogether, and that the lighthouses and the marking of the coasts should be in the hands of the Government?—No; if we have conveyed that impression, it is not the impression we intended to convey.

3719. But do you not say in your *précis* that the Association is in favour of the whole charge of lighting and marking of the coasts being taken over by the Government, and the electors would then have a direct right of representation to the responsible Minister in Parliament upon all questions concerning these aids to navigation, whereas under the present system you say that a request for a new light must be made first to the Authority concerned, perhaps the Scotch of Irish Boards, then approved by Trinity House, then submitted to the Shipowners' Advisory Committee, and finally approved or disapproved by the Board of Trade?—Yes, I cannot see anything that clashes with either of our former proposals.

3720. Because under this proposal the existing Authorities would be abolished altogether, and the whole responsibility would be thrown upon a Minister?—That was not our intention; our intention was to still leave the administration as to lights and marks with the Trinity House.

3721. How could that duty remain with Trinity House, and yet the Minister be responsible?—Well, I take it now that the Board of Trade to a great extent controls Trinity House in the matter of funds.

3722. The Board of Trade are not responsible for the initiation of any new works?—I do not know how far their responsibility goes, or where it ceases or begins, but they certainly put their foot down often, as I have known to my cost where it came to be a question of expenditure, and many a thing that I had set my heart on for years and tried to work out I found put away just by a stroke of the pen, and it was not the Trinity House that did it.

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3723. (*Colonel Herbert.*) I gather from what you said just now with regard to certain details of expenditure that you have no great confidence in the judgment of the gentlemen forming the different Boards to determine what their expenditure should be?—No, we certainly do not feel, where it comes to a question of money, that they have taken that care in the expenditure of it that one would like to do with one's own money.

3724. Does your objection lie chiefly to the constitution of the Authority?—Of what Authority, Sir?

3725. Of any of the Authorities; I think you spoke generally as to all of them. I think you referred both to the Irish and Scotch authorities?—We certainly think that both the Irish Lighthouse Board and the Scotch Board are not Boards with the knowledge that is necessary to carry on a great work of that kind, That is our feeling; we feel they are not composed of men with a sufficient knowledge of that kind of work.

3726. You think neither of them have got the technical knowledge necessary?—We do not think so.

3727. But you think Trinity House has got some of the technical knowledge?—We certainly have a very high opinion of Trinity House, but we feel at the same time that there are many shortcomings.

3728. Then is it your opinion that, in order to bring these Authorities into proper condition, there should be representation of shipmasters upon the Boards?—For the Scotch and Irish Boards, we do think so, yes.

3729. On those Scotch and Irish Boards would the introduction of the element of representation of shipmasters make them satisfactory Boards in your opinion?—Of course, everything is an experiment till you know, but we think it would improve the Boards.

3730. In this point, in your second proposal here, that the Chairman asked you about just now, where you mention Trinity House, you say here that the Trinity House should have control of all lighthouses in the United Kingdom. Do you mean by that, Trinity House as it exists at present?—No, Sir, I think a little further on you see "first having been brought up to date as before mentioned."

3731. Your proposal, then, is that you would constitute an entirely different authority, but would retain the title of Trinity House?—Of course, you may look upon it in that way, but we did not intend to convey that, nor did we think that in doing so we would create a different authority. We have thought there would still be Elder Brethren, who would probably be elected in another way—in an open way; that is the only difference we could see in it. It is for you gentlemen to say what you think about the thing.

3732. You think that a radical reform of Trinity House would be necessary first of all?—If that is a radical reform, yes; but we thought it was rather a mild reform.

3733. Well, what would you consider a radical reform?—Turning them out altogether, and starting afresh.

3734. Well, do you think that would be better, because what we have to do is to get at the best?—No, I do not; I think we have a very good substratum of valuable information in Trinity House, and I think it is something to build upon, but I do think that certain alterations as time goes on are necessary in every institution, in every corporation.

3735. You want to get better men in there and not keep them too long?—I do not say you get better men, but if you get men from all over the country you will possibly get a greater variety of ideas, and probably in the aggregate you will get better results, and not keep them too long.

3736. Not keep them till they are worn out?—No; I do not think a man over 65 is the best man you can get. He may be; some men are very good at that age; but taking it in a general way.

3737. (*Mr. Ennis.*) Your first suggestion is that Trinity House should be brought up to date by the open election of Elder Brethren instead of being co-opted as at present. Well, now, with regard to that election, you are aware that Trinity House is by statute limited in number. The number of members of Trinity House is limited by statute?—Yes.

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3738. Do you suggest that there should be compulsory retirement of any of the existing members under your age limit?—No, Sir, we would interfere with nothing as it stands at present.

3739. Then vacancies would only occur by death at present?—Quite so; yes.

3740. And your suggestions would only take effect then in a very considerable period of time?—Well, as the vacancies arose.

3741. But the vacancies in the ordinary course would not arise very rapidly, and therefore the elective element in Trinity House would be probably anywhere you like from 10, 15, or 20 years before you had a majority of elected representatives on that Board. Is not that so?—Yes, probably it would. It would all depend upon the age of the present members.

3742. Taking the ordinary course, I should say that would be a fair estimate to make of it. Therefore the change which you suggest in Trinity House, so far from being a radical or violent change, would be a very mild and gentle one?—Yes.

3743. It would take effect very slowly indeed, and would not mean the placing of effective power—that is, the power of the majority of the Board—in the hands of elected representatives for a very considerable time to come?—Quite so.

3744. Well, now, with regard to the suggested election of these representatives, you say they should be elected by those who pay the light dues?—That is in the first answer.

3745. Yes, I am dealing with that just now. The light dues of this country are paid by ships of all nations; the foreigner pays a considerable amount of the light dues, but you must arrive at some elective authority, and you say the shipowners, is not that so?—Yes.

3746. When you say "shipowners" I take it you mean some shipowners' association?—Well, I take it that it would come to that, that you cannot deal with individual shipowners any more than you could deal with individual shipmasters. You must deal with them through their associations.

3747. Quite so. I want to arrive at what in practice your plan would be. It would be by shipowners' associations; would that be by shipowners' associations at present existent, or by any fresh associations formed from time to time. Would you confine the elective principle to associations that have some kind of statutory authority, or would you allow any organisation that sprang into existence to take part in these elections?—I take it it is a question for the future to decide in a sense.

3748. But you will grasp that some method of working should be adopted in the event of a change in the constitution, and the shipowners' associations that at present exist are, I take it, voluntary associations?—They are; yes.

3749. Now, looking at the shipowners—this is a point that you will be thoroughly able to grasp—as a whole, you may divide them into different classes, with different interests, is not that so?—Yes; in a sense it is so.

3750. You have the shipowners who are interested in the oversea trade; you have the shipowners who are interested in the coasting trade; you have the shipowners who are interested in passenger routes; and would not, as far as lighting and marking of the coast go, the interests of these various classes of shipowners necessarily diverge somewhat?—There is always a difference of opinion, the same as there is between shipowners in different trades, and shipmasters in different trades, but we do not find that it is any bar to our arriving at a conclusion on any subject.

3751. What I mean to convey is, in the event of election to a Lighting Authority being placed in the hands of shipowners only, would not probably a certain competition arise amongst the various classes of shipowners as to the representatives to be placed on that Authority? Would not the various classes of shipowners endeavour to place their own men on the Board?—Well, that is just what we say, that they should have the right of placing their own men, and if the various associations—now you mentioned the coasting trade, and you mentioned the mail and fast passenger steamers, and you mentioned the long voyage ships; but still we are all combined, you know, in one association. Now, there is the Liverpool Steamship Owners' Association. We are all combined in one, and there are various committees representing each and every class of ship. There will be the Atlantic trade, the southern trade, the coasting trade, and so on, and these committees practically do the work, and they are endorsed by the association sitting.

3752. But would not, in shipowners' associations, the volume of influence of the foreign and oversea trade completely overbear the coasting trade and the passenger service?—We do not find it, Sir; we do not find it in our work. Repeatedly all these questions come up. I get them sent to me for opinion from more than one association, and we find that they all work in one way in the general interest.

3753. Well, with regard to the second point in your evidence on that main head, you say the Irish and Scotch Boards should be elected in a similar manner. Are there in Ireland or Scotland purely Irish or Scotch shipowners' associations which would be capable of electing the members?—I think so; yes.

3754. In Ireland and Scotland?—Who are members of a shipowners' association which meets in Dublin.

3755. Which is a purely Irish shipowners' association?—Yes, and I know there is a Scotch association; we are constantly in communication with both of them.

3756. Do the associations you speak of in Ireland represent shipowners in ports other than Dublin, or are they limited to Dublin?—Oh, yes, they represent shipowners in all the ports.

3757. Do you favour the election of members to a Lighting Authority by the Harbour Boards of ports?—To mention an authority where the Harbour Boards light the ports.

3758. No, but would you give to Harbour Boards a voice in the election of representatives of a Lighting Authority?—I do not see where they come in.

3759. Well, I take one Harbour Board. You know Ireland fairly well?—Yes.

3760. I take one Irish Harbour Board for example. The constitution of the Harbour Board is six representatives elected by the Parliamentary electors of the borough, six elected by the shipowners of the port, two elected by the Board of Trade, or nominated by the Board of Trade, one elected by the corporation of the borough, and the mayor of the place is *ex officio*. Well, you see, shipowners—if you take the Board of Trade nominations, which are always, I may say, shipowners—have practically a majority on the Harbour Board?—Yes.

3761. And it is a more local body—a body with more intimate knowledge of the requirements of the stretch of coast adjoining—than any association, say, in Dublin could possibly have; is not that so?—Well, I do not see how you can get outside the shipowners. If we have a shipowners' association, and the shipowners of the country belong to it, and they pay the dues, I do not see very well how you can get out of giving them the right of appointment if you follow that course.

3762. Your proposal is to place the entire power with regard to the lighting of the coast in the hands of the shipowners. Of course, you link that proposal with a proposal that the Government should take over the cost of the maintenance of the lights altogether; but, assuming that was not done, that is not a matter which comes within our purview—that the incidence of the taxes remain as at present—you have said, as I think very properly, that you look upon efficiency as the first object to be aimed at?—Yes.

3763. You wish to combine economy with efficiency, and you think it can be done; but, still, efficiency you look upon as the first object to be aimed at?—Yes.

3764. Does it occur to you that a body composed solely of shipowners paying these dues would have a tendency to place efficiency in the forefront of their administration of this work, or whether they would not be rather inclined to consider economy? You have referred to the Advisory Committee, which is a shipowners' committee?—Quite so, Sir.

3765. Are you aware that the Advisory Committee have objected to expenditure on many occasions?—Oh, indeed, we know it to our cost; we know that very well. In this matter we are between, you might say,

the devil and the deep sea; that personally, in a way, we would prefer, for the sake of efficiency, matters going on as they are, and the shipowners paying the dues; but we know perfectly well that the shipowners will never rest on those terms, and you know there is no use in trying to reach out for an apple that is above your grasp; you had better take the one that is nearest to you that is a bit smaller, and that you can get a hold of. That is the way we feel in the thing. We feel that we would be powerless to oppose the shipowners when the question of the incidence of light dues comes forward, that they would have more power and more representation, and more power with the Government of the day, than we would have, and therefore we try to arrive at something that will give us the greatest efficiency along with a moderate cost. Therefore we do not oppose a something that, if it were left to ourselves to say, we would say we preferred to leave the light dues just as they are; and personally I am in favour of it, very much in favour of it.

3766. (*Chairman.*) And the Authorities just as they are?—No, Sir, I do think, and we all think, that the time has arrived when Trinity House, by such a method as we have suggested, or some such other method as would best recommend itself to those concerned, should be brought more up to date. That is our feeling in the matter.

3767. (*Mr. Ennis.*) You are aware, speaking of the incidence of the taxes, and the difficulties of shipowners in that regard, that a reduction of 12½ per cent. in the light dues was made some few years since?—Yes.

3768. And that a further reduction of 7½ per cent. is now about to take effect?—Yes.

3769. Making a total reduction of 20 per cent.?—Yes, we know that, Sir.

3770. You have told us that efficiency has increased largely of late years, so that you have two facts at least; that efficiency has increased, and a reduction of 20 per cent. has been accomplished. Still, you think more might be done?—I think, if you look at the accounts, as far as I can recollect them, that that 20 per cent. is rather more than they could afford to pay with the present expenditure of the light dues collected for one year, but a portion of it is coming out of a fund that has been laid by out of certain surpluses. I do not think the light dues, as far as my recollection serves me—I may be wrong—have all come out of the year's collection.

3771. Well, as to your second scheme, in the event of the tax being placed upon the ratepayers as a whole, and not upon the shipowner, that the Trinity House should be the sole Lighting Authority with first-class superintendents, I think you say, in England, Ireland, and Scotland. Just before I leave your first scheme I want to point this out to you, that with regard to these Elder and Younger Brethren that you have been discussing, of course, at present Trinity House is bound to elect, in the event of a vacancy, one of the Younger Brethren of Trinity House, but as they might elect a Younger Brother to-day and co-opt him to-morrow as an Elder Brother, that provision does not have any practical effect. Any man they wish to co-opt they are practically in a position to co-opt to the position of Elder Brother, but your claim is that they should not even be bound to co-opt a man as a Younger Brother first, but that the man should be co-opted direct, or elected direct by the shipowners' representatives to the position of Elder Brother?—Yes, but I wish to correct an impression that perhaps may have got abroad that we wish to tie ourselves absolutely to the shipowners as an elective body. We certainly think in an affair of the national importance that the lights and marks of the coast are, there ought to be a certain Government control, no matter what course is taken, and some responsible Minister of the Government ought to be responsible for certain actions, and to see that wrong is not done.

3772. You wish in effect to place upon the shoulders of a Minister of the Crown a responsibility that at present does not rest there. There is a certain amount of control by the Board of Trade, no doubt, but the Board of Trade, as I take it, are not responsible in the sense in which you wish to make them responsible?—They may not be, but I have often thought myself, after repeated applications, when serious disasters have occurred at certain places, and the Board of Trade have been asked repeatedly, and it has been pointed out by influential petitions and otherwise that these disasters have occurred, I think a Minister of the Crown representing such a department can hardly shake off the responsibility. It may not attach to him, not legally, but I cannot help feeling that I should not like to be in his shoes.

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3773. With regard to the lighting of the coasts of the United Kingdom as a whole, do you regard the lighting of the coast as being perfectly satisfactory and efficient at the present moment?—No, Sir, I do not. There is a very great deal, and always will be, round the coast, that will require improvement. We live in an age of improvement. When you come to look at the difference in the trade, the way it is run, the speed of our ships, the weather they have to go through, it is not a question like it used to be, when we came in under sail, and we did not make a light; we just simply had to heave the lead over and ascertain the water that was under us, and turn her round, and wait frequently for several days.

3774. Do you anticipate any difficulty in placing the control of the lighting of the coast of the United Kingdom in the hands of one body. You know Trinity House itself exercises a certain amount of control at the present moment, but in the event of your suggestion being carried out, and the entire supervision being vested in the Trinity House with representatives in the outlying countries, would you anticipate any difficulties, or that improvements, say, in St. George's Channel, or the North Channel, or on the Scotch coast, might have to wait until the English Channel was brought into perfect order?—Well, I do not think that; I have never seen any disposition on the part of Trinity House to take and do anything more near home than they did in any other part of the coast.

Mizen Head: Necessity for light and fog-signal at,

3775. Are you aware that the Liverpool Shipowners' Association made strong representations with regard to a light and fog-signal at Mizen Head?—I am, Sir; I suggested that myself to them years ago, and I am very strongly of the belief that it is one of the most necessary lights on our coast.

3776. Lights?—And fog-signal.

3777. Lights, but would you divorce the light from the fog-signal, or the fog-signal from the light?—I would not.

3778. If it were said to you that the local lighting authority was opposed to the erection of a fog-signal at Mizen Head, on the ground that a fog-signal unaccompanied by a light would be a source of danger, would you agree with that?—No, I would not. You see we call attention to that. I have known in that locality myself, of my own knowldge, of several of our finest ships having been brought into Dunmanus in Bantry Bay, and if there had been a fog-signal on Mizen Head it would not have occurred; they have got out by the skin of their teeth.

3779. But what I want your opinion upon, and your opinion would be valuable in this respect, is, do you think a fog-signal at Mizen Head is sufficient, or do you think a fog-signal should be accompanied by a lighthouse?—That is our opinion.

3780. Which?—That it should be accompanied by a light. We feel that it is very necessary to have a light at Mizen Head. Now there are 30 miles of a stretch from the Bull to the Fastnet, approximate, within a mile or so, and the Bull is placed on the top, the highest place of the rock, for some reason; it used to be on the Calf until that got undermined by the sea. I went to rescue the people who were building the lighthouse. I thought they were a lot of shipwrecked men. I was so much astonished that I spent a whole Sunday afternoon, and sent a boat there. I thought these people were shipwrecked on the place; but to put a light on the Bull, and the weather we get, it is capped invariably; it is clear enough underneath for perhaps 100 feet or so, but above that it is all mist, and the land catches it, these high rocks catch it. This light is capped, and then you have nothing till you get to the Fastnet. If you go in between those in that kind of weather, or in fairly good weather six or seven miles off, you will go in between the Fastnet and the Bull if you are set to the northward, and it frequently happens in bad weather with south-west gales that you are set to the northward. I have made the Skelligs, the Outer Skellig right ahead, and very close, too, in that kind of weather. There was no fog-signal on it; there was nothing to warn us off.

3781. Then you are of opinion that a fog-signal

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alone on Mizen Head is not sufficient to make it efficient?—I would not think so; I never agreed with that idea, but it was the best we could get; it was the half loaf.

3782. I understand; but still you consider it only half a loaf?—That is so.

3783. You consider before you have the entire loaf you must have a lighthouse as well on the Mizen Head?—We think so.

3784. And therefore that is a point on which you consider the lighting of the coast is inefficient at the present moment?—We think that is one of the faulty points. In reply to our representation with reference to Mizen Head and the establishment of a fog-signal there, their argument was that it would induce masters to run into danger to pick up the sound. Well, an argument of that kind refutes itself.

3785. The Advisory Committee, your Shipowners' Committee, opposed a lighthouse?—I am quite aware. They are not my committee; we do not see these things with one eye, not with the shipowners.

Fog-signals: Inefficiency of fog-gongs.

3786. I was going to ask you about another stretch of coast as to the efficiency, because, in my view, experienced masters like yourself can tell us more about this than most other people. You know the stretch of coast between the Tuskar and the Kish?—I do, well.

3787. I do not know if you are aware that on that stretch of coast, from Tuskar up to Codling, at least, none of the lightvessels in there—the Lucifer, Blackwater and North and South Arklow—none of these lightvessels have anything in the nature of a fog siren?—No, Sir.

3788. The utmost that any of these vessels have is a fog-gong?—A fog-gong.

3789. I assume you do not regard a fog-gong as an instrument of very great efficiency?—Well, you would run over a lightship before you heard a gong.

3790. It is about as much use as a penny whistle would be?—I recollect my chief officer reporting fog-signal ahead, and when I looked down the lightship was alongside of us. He called it a band of music.

3791. Well, my own opinion in regard to the efficiency of fog-signals coincides with your own. Do you consider a stretch of coast nearly 100 miles in length with the chain of sand banks that run along there, the Long Bank, Glasgorman, Arklow, and all these banks; do you consider that that stretch of coast is sufficiently provided with fog-signalling apparatus?—No, it is not; it is not provided at all.

3792. Do you know that many coasting vessels get on these banks?—Oh, great numbers of them.

3793. Involving loss of life and loss of property?—Yes; I lost a cousin on the Blackwater Bank.

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3794. You say here in your *précis* of evidence, as the shipowners at present have to pay the cost of lighting, the tendency is to cut down the programme of new works in order to reduce the light dues, and the great danger is that in following out a policy of reduction some greatly needed improvement may be omitted?—Yes.

3795. That being so, you are still of opinion that it would be advisable to man the Lighthouse Authorities with shipowners, assuming that the incidence of the tax remained the same—assuming that the tax was not lifted from the shoulders of the shipowners, you still think it would be a wise policy to constitute the Boards of shipowners, though you say here they might cut down the programme of new works?—The Board would not be constituted of shipowners.

3796. They would be elected by the shipowners?—Yes, they would be elected by the shipowners.

3797. They would be elected by the shipowners; that is your proposal, and being elected by the shipowners they would obviously be elected to carry out the shipowners' policy, whatever that was?—If a certain number of shipmasters were elected on the Scotch and Irish Boards I do not think that they would be for cutting down efficiency.

3798. Yes, but you state in your evidence here that the tendency would be to cut down the programme of new works, and that the danger is that, in following out a policy of reductions some greatly-needed improvements may be omitted. Now, that case in point that you referred to in your evidence before as to Mizen Head is a case in which the cost of erecting that fog-signal on Mizen Head would be objected to by the Advisory Committee, the Shipowners' Committee?—Yes, they did.

3799. You are aware that the Advisory Committee at present possesses no statutory power?—Yes.

3800. It is simply brought in as a committee to advise; there is no compulsion to accept its advice, but still its advice weighs largely with the Lighting Authorities and the Board of Trade?—Did you want me to say anything further on that matter?

3801. No; I simply point it out to you?—With regard to the shipowners, we say they have the right, as they pay the money; if they pay the money they have the right to select the tune.

New Works: Objected to by Advisory Committee.

3802. But you still anticipate that there is a danger?—Well, with our experience of the Advisory Committee you know it is shown. Now there was St. Govan's Lightship that was put down, and Trinity House wished to have it established there, a most necessary work, and yet the Shipowners' Advisory Committee eliminated it, and the Board of Trade adopted their view.

3803. That bears out your contention here?—Yes; that is one of the things. Of course, Mizen Head is another. I could go on and give you one or two examples of a similar kind where they have come in and prevented it. But, in a general way, what we think is most necessary is that there ought to be one central body, and that the work should be carried on without friction, and there would be no difference of opinion in the matter. Now, for instance, there is Black Head Light, on Belfast Lough, and there is Black Head Light, on the Mull of Galloway coast, just above Port Patrick. Both those lights, as originally designed, were of the same character. I am speaking just approximately, but those lights are only some 25 miles apart. Now, a vessel coming up there and making either of those lights, let us suppose on the wrong bow, would be put into danger at once. Of course, they have been altered, but it only shows you how those things might occur through two Boards putting a similar character light in the immediate neighbourhood of the other light.

County Down coast: Inefficiency of lighting of,

3804. Have you heard any complaints as to the efficiency of the lighting arrangements on the coast of the county Down?—Well, I think it is within every seaman's knowledge that knows the channel, and especially the north channel, that it is very badly lit to the southward of South Rock Ship; that it badly wants another lightship off the coast, and the wrecks that occur there from time to time plainly point to that.

3805. And therefore you hold that a service is not efficient which does not provide for the safety of human life on that part of the coast?—Efficiency may be carried out in existing works, in existing lights, but I think it will always come along. We will always have something else to deal with; as we go along there will be some additional work needed to perfect.

United Kingdom: Importance of lighting of coasts of,

3806. But you would take it that the lighting of the coasts of the United Kingdom ought to be, at least, equally efficient with the lighting of the coasts of any foreign power?—I think so, more so.

3807. Having regard to the enormous trade of this country?—I think so, having regard to our coasts, looking at the exigencies of weather and the immense traffic that goes all round them in all kinds of weather. It is no use saying you should not go; you should not do this and you should not do that. What is a man to do with a lot of cattle on board his ship if he has got no fodder and no water for them? He has to get somewhere to get into touch. That is a special occasion, but it is a thing that happens to thousands of our vessels in the year. And then there are all sorts of perishable cargoes, to which each day's delay means a depreciation in value. You say to the captain, "Well, you should not have done that; you have damaged your ship," or something; but there is the pressure behind him. He knows perfectly he has got to get a market for his commodities within a certain time, or those commodities will go bad in his hands.

3808. And in the passenger service would it be correct to assume that a master who consistently makes poor time would not be considered as efficient by the directors of his company as a man who made rapid passages?—Well, I should think so myself. I should expect to get dismissed.

3809. And therefore the temptation to run nearly full speed in thick weather would naturally be very great?—Well, I draw a line at thick weather.

3810. I mean the temptation to do so?—There is a great temptation to do that sort of things, but I must say, from my own observation of all kinds of men, in thick weather they, as far as in them lies, try to provide for safety—as much safety as you can get in fog, which is not a very great deal after all.

3811. With high power vessels going at the speed which those big ocean steamers travel now, it is essential that fog-signalling apparatus should be of the best possible description?—Undoubtedly.

Submarine Bell Signal.

3812. Have you any experience yourself of the new appliance, the submarine bell?—I have no knowledge of it. It has been established on the North-west Lightship in Liverpool, but since then I have not been in active service, and I have not had the opportunity of testing it.

3813. It has been established in these countries as an experiment?—As an experiment, but the Mersey Docks and Harbour Board have established it in the Fairway lightship some 10 miles off the bar.

3814. That is a local authority?—Yes, a local authority.

3815. But the General Lighthouse Authorities in the United Kingdom have not, so far, established this service except experimentally?—I have noticed in this year's estimates for new works of the Trinity House that there is a sum set apart for submarine signalling.

3816. Experiments?—I do not know whether they are experiments or whether it is with a view to fitting some of their lightships; I really forget now but I noticed the fact that it was in this year's estimates.

3817. I take it that you would consider that money spent upon experiments, anything in the nature of life-saving appliances, would be money well spent?—Undoubtedly.

3818. There should be no cheeseparing in that regard?—No, no cheeseparing. No undue expenditure, but to take and consider the thing intelligently, and know what you were doing before you moved.

3819. But if you were aware that the submarine bell has been in use by the United States and Canadian Governments for at least two years, and that we are only experimenting with it on this side, would that lead you to suppose that we had not been quite as active in our endeavours here as they have in other places?—Well, that has always been the case; the United States and the Canadian Governments, in matters of invention, have always been before us. They brought out the whistling buoys and the lighted buoys, and all sorts of things, before we thought of them.

Illuminants: Electric light deprecated.

3820. There is another matter stated in your evidence here. You say, "I do not admit that the French lights are better than the English, but, in my opinion, not so good, being mainly electric, which is a bad light in anything but clear weather." Would you say that the French lights, which are of enormous candlepower, would not penetrate further than the British lights?—No, not if the British light was oil or gas.

3821. I do not mean of the same candlepower?—No, I quite follow you. But I will give you an example, Sir. Take the Mersey, for instance. There, along the line of docks, they have a range of electric lights, powerful arc lamps, and there is a lower range of lights, the ordinary gas lights on the dock walls. Well, now, it has come under my own observation repeatedly that when the weather has been getting hazy those electric lights, one ofter the other, would disappear, and the gas lamps were perfectly visible, just the ordinary, perhaps, 25-candlepower gas lamp, and they were visible and never were obliterated, and the weather was not of such a nature——

3822. (*Admiral Henderson.*) Incandescent gas?—No, on the dock wall there are just plain gas. And I might mention that as far as my observation goes, incandescent lights of no description are as good, as seamarkers, as the ordinary oil or gas. There seems some thing in the purity of an incandescent light or an electric light, that seems to destroy its power when it is dealing with an impure atmosphere; it does not blend with it and give that glare which an ordinary gas or oil lamp does.

3823. (*Mr. Ennis.*) But, still, with the great power that is capable of attainment with an electric light, I mean with the candle-power infinitely superior to any other, and placed at an elevation, will not an electric light carry further than any other appliance?—No, Sir. The lights I have seen furthest and the best are Wigham's Giant Lenses, as exemplified by the Copeland, by Mew Island, Tory Island, and Galley Head. These lights are certainly, as far as I have been able to judge, the best lights in this way, that even when they are absolutely invisible on the line of sight, you see the reflection of them in the sky; they throw up what is sufficient in itself to indicate the position of the light.

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Wigham gas lights advocated.

3824. Do you approve of the modern system of an extremely rapid flash?—Oh, yes.

Rapid flash approved.

3825. Has it ever occurred to you that there is a disadvantage in this respect, that the flash is too rapid to permit of a bearing being taken?—No; the intervals between the flashes are so short that you can always take a good bearing, you can always arrive at a correct bearing.

3826. You believe that to be so?—Oh, yes; I have tried it over and over again. We take four point bearings of everything we pass; Skerries, the quick flashing light, just the fraction of a second since it has been altered, we have no difficulty in taking it, not the slightest.

Fog-signals:

3827. You see no difficulty in that respect?—Not the least.

3828. You say that if a light is required at a given station, a fog-signal is also necessary, and you have also said that the reverse of that proposition holds good, that if a fog-signal is placed a light ought to accompany it?—Precisely.

3829. You say, "Complaints are frequently being made of the length of time it takes before a foghorn can be sounded after a fog sets in." You have experienced, I have no doubt, difficulty with regard to an area of silence in fog, an area in which you do not hear the fog-signal at all, though you may be comparatively within the reach of it, within the carrying power of it?—Oh, yes, there are zones of bad sound. I suppose that it is within every seaman's knowledge. For instance, you will hear a fog-signal, and you will time it, and you will go on to hear it again and again, till there can be no doubt as to what fog-signal it is. You time it each time and take the intervals, and then you will not hear it, and I have gone on for two or three miles like that and not heard it, and then I have picked it up again. The first time I heard it I heard it very loud, and then I have followed it on.

Areas of silence of,

3830. That area of silence is not a constant quantity?—It is not.

3831. That is to say, a place that may be an area of silence to-day, may be a place in which the signal may be heard perfectly to-morrow, and some other place becomes the area of silence?—The only thing with reference to the area of silence that struck me in observing the difference is this: there is an area of silence in the neighbourhood of the Skerries, in the South Stack, and it is very noticeable, but I never knew an area of silence from either a ship afloat, such as a steamer or a lightship, that was not interfered with by the land, where a ship was free. Now, the Tuskar is another instance, the Tuskar light. That is a lighthouse—I would not like to say how many times I have passed it, oftener than I will again—but I have never passed that but once that I did not hear it, in fog, in thick weather, the rocket signal on the Tuskar.

3832. I can hear the Tuskar signal in my own bed?—And a very good signal it is. It is one of the most reliable on the coast, I think. This has always led me, engaging these zones of sound or bad sound, to imagine whether, rightly or wrongly, that they really do not exist only in so far as they are approximated to land which deadens or deflects the sound.

3833. But still, those areas of silence exist as a matter of fact whatever the cause?—They do, yes.

Establishment of submarine bell contemplated.

3834. You would regard anything like a submarine bell or any appliance which would be effective and do away with such an area as being a valuable invention?—Yes, and I think that we are not so very much behindhand in regard to the submarine bell; I think, if I recollect rightly, the Trinity House, some two years ago, placed it on their estimates.

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3835. Did they get the money passed for it?—But the Advisory Committee objected to it.

3836. Yes, there you are again?—I do not think you have reason to accuse Trinity House of wrong-doing in the matter.

3837. I have not been accusing Trinity House?—Oh, no; I always like to see the right man carrying the weight.

3838. (*Admiral Henderson.*) Where are the head-quarters of your association?—Liverpool.

Beachy Head Lighthouse.

3839. Is the new light at Beachy Head exposed to any heavy sea?—Well, it is exposed to the sea which will wash up at its base.

3840. It is not exposed to the sea the same as the Eddystone?—Not in the nature of the Eddystone or the Wolf, or take any of those West Coast of Scotland rock lighthouses.

Lightvessels: Cost of,

3841. Would not the cost of a lightvessel very much depend upon its design, irrespective of size?—I beg your pardon; by the design do you mean the construction?

3842. The cost would depend upon its design. Of course, size has a great deal to do with it, naturally, but I do not know what the actual requirements are. They try to make these lightvessels unsinkable now. I believe?—I do not know; I could not say that, nor have I ever heard of it. The Daunts Rock lightship was not unsinkable.

3843. Do you know whether the lighthouse keepers' cottages, that you spoke of on the coast of Kerry, have to stand any very extraordinarily heavy weather, or are exposed to the sea at all?—No, they are not exposed to sea at all; they have only to stand the ordinary weather of an ordinary house.

3844. An ordinary house on the west coast of Ireland?—That is nothing; well, the mud cottages stand it.

General Lighthouse Authorities: Suggestions for reconstitution of,

3845. Well, I take it as your opinion that if the shipowners were represented on the governing body of lighthouse administration, you would get greater efficiency and economy, and particularly also it would not give rise to the various suspicions and allegations which take place against the present Lighthouse Boards?—I do not think that is exactly our view, Sir. Our view more nearly approximates to this, that we consider, with regard to the Irish and Scotch Boards, that there should be a certain nautical element on those Boards. As at present constituted, they are not the best Boards you could get for the purpose. With regard to the Trinity House, well, I think it is pretty clear what I have said there. We should be very loath in any way to interfere with Trinity House as at present constituted until the existing members either resigned or died, and then a system of reform would take place.

3846. Now supposing it should be proved that either the Irish Board, or the Scotch Board was very much more economical and efficient than the Trinity House, would that alter your opinion?—Well, no, I have always been of opinion, and in fact, our council are of opinion, that Trinity House is most extravagant.

3847. Is most extravagant?—Yes, that is our idea about Trinity House.

3848. You think it is?—Yes.

3849. Now, supposing you were to reconstitute the Lighthouse Administration of the United Kingdom, and supposing that the Trinity House remained in charge of England and Wales, as it is at present, would you put thirteen managing directors at a salary of over £500 a year each to do the work?—As represented by Trinity House?

3850. Yes?—Well, I really do not know the number.

3851. There are thirteen doing the work; of course, they have got engineers and secretaries, and other people, but there are thirteen (and I compare them with managing directors), who serve on various committees. Now, from a business point of view, would you constitute a board to do, even England and Wales, with such a number of managing directors as that?—About £6,500 a year?

3852. £7,000?—Well, it is all right, Sir, but I once heard a railway manager say that he would manage all the railways in Ireland and go fishing two days a week.

3853. (*Mr. Ennis.*) Three?—Was it?

3854. (*Admiral Henderson.*) I want your opinion as a business man as to whether you consider a board of that kind is an efficient way of getting an efficient administration?—Oh, I think so; I think a board of that kind ought to be capable of thoroughly administering.

3855. But is it not really in excess of the requirements; is it not uneconomical?—At that price?

3856. Yes?—I do not think it is an expensive Board; many a managing director of a big concern gets that much himself.

3857. I am speaking of numbers now; take any board of directors in any big business concern really spending very much more money than they do; do they have a board of thirteen directors?—It is not our view to interfere in any way with the present privileges of the Trinity House. We feel that they have done so much for the country and for the sailor that they ought not to be harshly dealt with in any way.

3858. But is not that rather a philanthropic view?—Well, it may be.

3859. And not a business view?—Well, I would not say that it was not a business view. You would have to pension them; suppose you cut them off with a stroke of the pen and reduced the number. Those Elder Brethren, I suppose, would have to receive compensation in some shape or another.

3860. That would wear off in the course of years?—If they thought better to do it in that way.

3861. You have made two suggestions, and one of those suggestions is that if the payment for the lighting of the coasts fell upon the general taxation of the country, you would have one Board to undertake the administration of the whole coast of the United Kingdom. Now supposing the light dues were raised as they are now, do you think it would be much more efficient and economical to have one Board under the present system for the administration of the whole of the lighting arrangements of the coasts of the United Kingdom?—Well, I daresay that would be our opinion if we had not something else in view in the shape of the shipowners. You see as I said before we feel that anything that the shipowners have not got a hand in in this matter will not be carried, and we feel that it would be useless our suggesting certain reforms.

One Central Lighthouse Authority: Advocated.

3862. No; but I suppose that in any reconstituted Board the shipowners would be properly represented. Take that as granted from my point of view, that in any reconstituted Board, in whatever manner the light dues were collected or the expenditure was provided, the shipowners would be properly represented; is it your opinion that one Board to do the whole coasts of the United Kingdom would be better than the three existing Boards?—I think so; yes.

3863. Do you think it would result in economy as well as efficiency?—I do; I think it would.

3864. Under those conditions, granted the one thing that you want, that the shipowners were properly represented, would you and your Association approve of that?—I think so; I think they would approve of that. I think they would approve of one Board, provided that the thing was practicable. I am very much afraid it is not.

Lloyd's: Representation of, in Lighthouse Authorities is unnecessary.

3865. (*Mr. Ennis.*) As to the questions that Admiral Henderson is asking you I should like to know in a reconstituted single Board or three reconstituted individual Boards would you consider that Lloyd's would have a right of representation?—Well, if the shipowners pay the dues I do not see where Lloyd's come in, because Lloyd's are only doing something that they are paid for doing. They get the premium and they take the risk, and they take the risk on the basis of things as they are. Additional lights or marks mean assistance to navigation, and are only something in their favour. They ought to take off an eighth of the premium for that, but they do not. I do not think Lloyd's come in.

Efficiency of lighting of coasts of United Kingdom.

3866. (*Admiral Henderson.*) I think you have stated, speaking in broad and general terms, you consider that the coasts of the United Kingdom are fairly well lighted and generally up to date, but improvements are required, and always will be required?—Yes, they will be.

3867. That is a general statement, and you think

they are just as good as any other coast you know?—Well, I look upon our coast now as being lighted fully equally to any coast, and taking the character of the lights into account I look upon them as far superior to the French coast. They have as many lights probably as the French coast, but I do not like the electric light, because I have proved it so often that you cannot see it under the conditions of weather that the other lights are visible in.

3868. I do not know whether I did ask you this on the question of proposal No. 2, if carried out, would it not be better to have a new system altogether; if proposal No. 2 were carried out would it not be better, instead of your suggestion that it should be put on the Trinity House—well, you know the Trinity House is a private corporation which has other interests—would it not be better if your idea were carried out to have a new system altogether, a new governing body I mean?—Well, in giving our views here, and the views that I hold myself, as embodied by the Council of our Association, we felt and we feel very strongly that we would not like to do anything in opposition to a body like the Trinity House. In the past they have done so much for the country and they have shown themselves, up to a recent date in all our transactions with them, so amenable to reason when a thing has been put before them, that really we do not like to take or act in any way that would be detrimental to their interests.

3869. I suppose to sum it up I might say that the acting Elder Brethren being sailormen are objects of veneration to your Association?—No Sir; we are not represented on the Trinity House.

3870. No, no, but outside?—We might very well take up the other side, but we do not feel that, though we have none of our members that I know of on the Trinity House as Elder Brethren; still we feel the Elder Brethren have done a very good work.

3871. Now you put forward one point—I am only criticising these things—in which you said it would be very nice to be able to ask questions in the House of Commons as to all the deficiencies. Now I put it to you, is not the House of Commons overburdened as it is, instead of being bothered by questions of a petty lighthouse here and a petty lighthouse there, and you had better have an authority which is, so to speak, outside the House of Commons to deal with?—Well, I do not know, Sir; you hear all sorts of questions asked about a policeman in the House of Commons if he happens to be an Irish one, and I think we might very well say we have as much right to be heard as some of these people that claim the attention of Government.

Difficulties arising between General and Local Authorities.

3872. There is one other question I wanted to ask you, and that is, in your experience have you met any difficulties or questions as to the proper lighting or buoying of the border land between the local harbour authorities and the Lighthouse Boards?—Well, it sometimes occurs. For instance in Waterford Harbour there should be a light on Creadan Head. It is in the harbour, it is a question; the outside lights are maintained. I think the harbour light at Dunmore is maintained by the Board, and made because it is a Board of Trade pier.

3873. (*Mr. Ennis.*) Dunmore is a Royal harbour?—It is a Board of Trade pier, I know, and the Hook comes under the Irish Lights Board, but there is no light on the Creadan Head, and when I have spoken to the Harbour Board on the matter they have said well, it is a question whether they would have jurisdiction to put a lighthouse there. That is the only instance that I know of.

3874. The point that Captain Wade speaks of I know perfectly well. I think it is within the jurisdiction of the Waterford Harbour Commissioners; I think it is not on the border line.

Mersey Docks and Harbour Board: Efficiency of administration of,

3875. (*Admiral Henderson.*) Now is there any other point that you want to bring before the Commission?—Well, there is one thing. When you take the Mersey into account and the way that the work is done there under the Mersey Docks and Harbour Board I think it is a fair object lesson to any Lighthouse Authorities to see how work should be done.

3876. You mean to say thep do it efficiently?—They do.

3877. But do you know anything about the cost?—Well, I have the cost in the papers. I got what it cost this year for the Mersey. It was about £33,000, somewhere about that. Of course it is rather large.

3878. Is not that comparatively speaking excessive?—Well, you know, it is an exceptional port. The channels run through unseen sandbanks, and the work is carried on there under all conditions of weather, and a miss would mean the loss of a ship and probably all in her.

3879. That is the lighting and buoyage alone?—The lighting and buoyage, but of course it extends as far as Point Lynas.

3880. Have you any idea as to how that compares with the cost of lighting the Thames?—I did see the comparison, but as I said, it was just before my recent illness, and I do not seem to recollect very much about it.

3881. You had the comparison?—I got the comparison to make a report upon.

3882. Could you give it to us?—I will look among my papers, but I am afraid my papers got into rather a bad state when I was ill.

3883. Would the Mersey Docks Board have it?—I really forget now how the thing came about. I got it, I think, through the Steamship Owners' Association. They sent it to me to send them a report on it as to certain matters that they wanted to be informed on. That is how it came to me. I could not give you the whole particulars.

3884. There is the Clyde?—I am nearly sure that the comparison was between the Mersey and the Thames, for very much the purposes for which you ask for it now. It went into the whole question of the cost.

3885. In favour of the Mersey?—I made my report at the time. No, I think the Mersey was the heavier. I think the cost of lighting the Mersey was the heavier.

3886. For the area?—Yes; they had to resort there to very heavy moorings for the buoys; the tides are so strong; they are so exposed to heavy gales.

3887. (*Sir Frank Adam.*) Might I ask do you know that the lighting of the Thames is under the Lighthouse Authority, Trinity House?—Yes, Sir.

3888. How did you manage to get figures which enabled you to make a comparison with the Mersey Docks and Harbour Board?—That is exactly what I cannot tell you. They came to me in the way of a report of the whole of the new works, and there were certain comparisons given, and really now I cannot go into it. As I say, I made it before my illness, and everything seems to be blotted out to me.

General Lighthouse Authorities: Suggestions for reconstitution of,

3889. On the first page of your *précis* in speaking of the charge being put upon the Exchequer, upon the Consolidated Fund, you refer to Trinity House being brought up to date, and I take that to mean, looking to the No. 1 paragraph, that Trinity House being brought up to date means that the shipowners should elect the new members to Trinity House?—Yes, that is on the supposition that they pay the dues.

3890. Then what do you mean by Trinity House being brought up to date on the supposition that it is to be put on the Consolidated Fund—the cost of lighting?—Under that heading, you know, Trinity House, according to our view, should be the sole control.

3891. But what do you mean by being brought up to date; you use that expression?—Well, we consider Trinity House is not up to date now in the way that the Elder Brethren are allowed to hold office until they die. We consider that when a man has arrived at about 65 years of age, well, it is time he was relieved. That is our view of it. And further than that, we do not think that any board is up to date where the members are co-opted into their positions as the Elder Brethren are.

3892. May I take it then, that in supposing *apropos* of your *précis*, which is before us now, that the lighting charges are put upon the Consolidated Fund, by bringing Trinity House up to date, and leaving things, as you seem to wish to do, in the hands of Trinity House, you only mean that no member should be allowed to serve beyond the age of 65?—Well, our intention was, and our wish was, not to interfere with any existing members.

3893. That I quite understand; this would be a new rule that would be enforced?—Quite so.

3894. Who would elect, under those circumstances, the members of Trinity House, the shipowners having

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lost their right to do so by the charges having been put upon the Exchequer. Whom do you mean to elect the Trinity House in future?—Well, I take it then that the appointments would rest with the Board of Trade, or such other Government Department as was appointed for the purpose.

Instances of extravagance of,

3895. You have very wisely pointed out that in your opinion you consider that the cost of the building of certain lighthouses, the cost of certain lightships or buoys has been more than it ought to be. In the last page of your *précis* you say "The cost of lightships and maintenance must largely depend upon the situation of the ship." Now does not that mean that in all things, whether it be a lighthouse or whether it be a dwelling house on the coast of Ireland for lighthouse-keepers, or whether it be a lightship, all the particular costs must be governed entirely by special considerations?—Yes, in certain particulars. If you go to build a rock lighthouse you must build a rock lighthouse, and it has got to be done in a certain way, or it will not stand, but if you take and put a lighthouse, we will say, up at each end of Lundy Island, as was done recently, and you start on a base, we will say, of 140 ft. above the sea level, then you must make a structure of 78 ft. or 80 ft. or 90 ft., or whatever it may be—I do not say to a foot what it was—and you build a most costly structure, which is of no earthly use to you, I mean to say that is a waste of money.

Lundy lighthouses.

3896. You are referring now to a particular case?—Yes, two cases, North and South Lundy. For those lighthouses are on the solid rock, and then they took and put a bed of concrete down. I do not know what that was for except it was to spend money, and they took and built these great big structures. We did not ask them. The lighthouses were quite high enough, taking the base instead of the vane, and things would have been much better if they had just simply put a light apparatus a few feet above the rock.

3897. Is it not possible that there were considerations which they had before them which led them to decide upon that particular lighthouse which you had not the opportunity of getting a knowledge of?—One never knows what is in somebody else's mind, but we were never able to find them out. And there is the Foreland, in the Bristol Channel, that is another lighthouse built at a very great height and a considerable tower built up. We have always been at a loss to know why these immense structures were made when, according to all the best knowledge of lighting, the lower you keep a light for present day navigation the more efficient it is. You prevent it getting into the region of mist, where it gets capped.

Foreland lighthouse.

3898. (*Chairman.*) A lower light has now been constructed at the Foreland, has it not?—Well, I am not aware of that, but as an advocate for the Foreland light, and those lights on North and South Lundy myself some years ago, I have followed the thing very closely, and watched it, and the St. Govan's Shoal lightship and other matters in the Bristol Channel, and I have always been at a loss to know why this immense cost was gone into when you are only taking the light away from the region in which you want it.

3899. What was the date at which the lighthouses on Lundy Island were constructed?—Well, I could not tell you to a year or so; I should say they are there within ten years.

3900. (*Sir Frank Adam.*) What I understand you to mean is this, that certain lighthouses which you named have been constructed in a different way to what you, and those who act with you, consider advisable, and at too great a cost, but that does not shut out, or you do not wish to deny, that there may be reasons which you do not know of, wise reasons, why that was done?—Well, we do not know of the reasons.

3901. You do not know?—We do not know of any.

Lighthouses: Alterations of, at present desirable.

3902. With regard to lighthouses, you mentioned Beachy Head as a special one which used to be on the cliff, and which is now on the level of the sea. I suppose that there, and in a number of similar cases in your knowledge and recollection, lights have of recent years been changed for wise reasons and good reasons?—Oh, yes, we have had several lights changed, and they have been very valuable changes.

3903. And therefore the total cost of lighting the coast of recent years, both as regards the position of lighthouses and also by improvements in lights on shore and by lightships, might possibly look as extravagant if it were not known that it was the result of obtaining very great efficiency, and had the general approval of those who knew what was best to be done, like yourself?—Well, unfortunately that was not the case, Sir. A lot of things were done that we did not exactly approve of. For instance, now, where two lighthouses exist, I think I was the first, probably, that made the suggestion of doing away with two lighthouses and placing a flash or a revolving light of a distinctive character on one of the towers in place of them. And if the two lighthouses were placed in such a position that in one they cleared certain dangers, then take and put a red sector of the light over that danger. That has not been followed out to its logical conclusion. We still have two lights at Milford, St. Anne's Head. We have two lights on the Nash; we have a high light placed on Caldy Island, up in the clouds almost, while a smaller light lower down would be a guide to the roads, and would be far more valuable, because if you look at the chart you will find it is inside the fairway line; it is in Carmarthen Bay.

3904. In all those cases which you are now mentioning you consider that further expenditure is necessary in order to improve the efficiency of the lighting of the coast?—It is like this; if you do away with two lights on the Nash and you put, say, a quick flashing light on the low lighthouse, well, you do away with one lighthouse establishment, and therefore that saving becomes evident at once.

3905. In maintenance?—In maintenance.

3906. Though initial cost is increased?—The initial cost, I suppose, would be increased to the extent of the new apparatus. And the same way on St. Anne's, the same thing would take place; you could very well do away with one lighthouse there, and give it a distinctive character.

Importance of distinctive character of,

3907. The light a distinctive character?—Yes, the light a distinctive character.

3908. Which in your opinion ought to be?—I should say something like the present Lord Kelvin said in a lecture. He said every light ought to spell its own name. He meant, you know, that it had such a distinctive character.

3909. Had such a variation that a passing mariner could not mistake it for another?—That you could not well mistake it.

3910. If you will refer to page 3 of your notes you will see you say that "Of recent years the Lighthouse Authorities have shown a disposition to carry out new works and improvements urged by nautical men, but what is wanted is a more general policy of coordination and uniformity among the three Boards, so that the character of all lights, marks and fog-signals should be defined by an intelligent and comprehensive programme embracing the whole of the coasts." Is it not a fact that practically Trinity House, of whom you have such a very high opinion, have that power at the present moment?—They may have the power, but they cannot spend the money unless the Board of Trade approve of it, and what is the good of the power without the money?

General Lighthouse Authorities: Suggestions for reconstitution and control of funds of,

3911. Then, in this idea of a new constitution which you indicate, you wish the power to rest with them of not only administering and organising, but also that they should have the power of the purse?—Well, I certainly think that as Trinity House had in former times the power of the purse, and it was taken from them for the very reason that it was taken from the Board of Trade, shortly ago, because they spent the money for purposes other than that for which it had been collected, the thing that strikes me is that, under certain safeguards, Trinity House might very well have the spending of the funds if they are responsible for them.

3912. Then do I gather from your answer to this last question that you have in your mind in the event of the shipowners continuing to pay the dues that a Trinity House elected in a somewhat different method, which you have indicated, and serving only up to 65 years, should receive those light dues, and have the full control of them?—Now I am afraid we clash a little there, on the question of the first and second. You see, my first one embraced that fact of the shipowners paying the dues; the second one goes into the fact that the nation supplies the funds. Now, if the nation supplies the funds, Trinity House can very well administer them under the supervision of

the Government of the day. But if the shipowners supply the funds, I take it they will want to have a voice in the matter—at least, I know if I did I should like to have something to say—as to what you did with them.

3913. I want rather to be clear on this point; I am sure you see the reason why. Supposing that a new authority were constituted, giving, as you think ought to be done, election to the shipowners who pay the dues, then do I understand you to mean that without any control or authority from Parliament or otherwise the representatives of the shipowners, whatever they might be called, this new body should have the full control of the funds?—Well, in Scotland and Ireland they would have control of the funds required for their district.

3914. When?—If the shipowners paid the money.

3915. Now do you mean that?—Well, they would. Under our proposal they would have control of the funds because their own nominees would be on the Boards, but in England Trinity House would administer the affairs of the country as far as the lighting and marking went.

3916. (*Chairman.*) But always subject to the control of a Government Department?—Always subject to that.

3917. (*Sir Frank Adam.*) You do not mean to say they ought to have the power of spending the money without any control from a Government Department?—No, I think it would be foreign to anything that we thought that any public board or any board of that description should be out of control of anybody, that they could actually do as they liked. No doubt such an arrangement would be come at that they would be under a certain control if they exceeded certain limits.

3918. Can you imagine a body of shipowners having full control of the receipts and the expenditure gradually refusing to spend anything, and therefore eliminating the incidence of the light dues altogether?—I can quite well imagine that, Sir.

New Works: Recommendations for, made by Mercantile Marine Service Association.

3919. I just want to put one or two other questions. You referred to some cases in which very strong representations had been made and petitions sent in of disasters. I think in reply to some questions of Mr. Ennis you said those had been repeatedly made by yourself and the body you represent?—Yes, they have been made by our Association. Our council have made them over and over again; we have discussed the matter. That is with reference to Mizen Head. There is another like that, St. Govan's Shoal, Bristol Channel, where there is a lightship now sanctioned to come on. She was passed in last year's estimates; she will be established there in April.

3919a. I gathered from what you said that you felt that these representations and petitions had not been received in the way that you expected them to be received at the time?—Well, they did not bring any good result; they did not build the lighthouse on the Mizen Head, and they did not put up a fog-signal there.

3920. Were those representations made by you to the Board of Trade or to the Lighthouse Authority?—Well, I cannot give you a perfectly correct answer, because I do not really know. I know I was on the Council at the time that they were being discussed, and it was on my initiative that the matter was proceeded with, but how the matter was represented through the Executive I do not know.

3921. (*Chairman.*) Do you think you could furnish us with a list of the recommendations for new works made by your association to any of the three Lighthouse Authorities during the past ten years?—I think so, Sir; I think we could go back. Well, we started this work before, but practically in my time we started in 1891.

3922. From 1891 onwards?—From 1891 onwards I have been closely connected with everything.* *Captain W. S. Wade.* 26 Feb. 1907.

(*Admiral Henderson.*) It might state what has been carried out and what has not.

3923. (*Sir Frank Adam.*) I gather from what you have said that it is your opinion that of recent years things have been carried out more quickly and efficiently than used to be done in the antedated period?—Yes; ever since the light dues have been allocated for the purposes of the marks and lights on the coast we have never had what I call reasonable ground for complaint; everything has gone along very well. And anterior to that the Trinity House always showed a disposition to meet us. I must admit they acted with the very greatest fairness to us in considering our proposals and in giving us what they thought ought to be done. What they did not do it did not appear to us to be their fault.

Advisory Committee: Attitude of, as to proposed New Works.

3924. Then it is your opinion generally that except in so far as new works have been stopped by the Advisory Committee and the Board of Trade, the Lighthouse Authority have been carrying out the work efficiently, although in some cases not with the economy that you think might have prevailed?—I think that is rather in the minds of the Advisory Committee—the Shipowners' Advisory Committee—that they think they are not getting value for their money. They are not a class of men who are in the habit of paying 2d. for a thing they can get for 1d. I think they have got their teeth into that, and they will not budge. In communication with the Advisory Committee afterwards, they have expressed regret that they had not sanctioned certain things that were pointed out to them were very necessary; but as they considered that a waste of money was going on, it rather made them feel that anything in the shape of new works must be opposed; that sort of thing, you see.

3925. They have a general vague impression that works have not been done as cheaply as they might have been done, but they cannot really put their finger, for various reasons, upon any specific detail in which they could take exception to the expenditure?—I am afraid they could. I am afraid some of those men could tell you just now what a square foot of timber would cost, and there is not much in the way of ships or machinery that they do not know.

3926. Admittedly so, of course, but with that knowledge in their minds, which they undoubtedly possess, would they be able to say that in any particular case the expenditure on any particular thing, lightship, or fog-signal, or lighthouse, had been greater than it ought to have been?—Oh, I think so.

3927. You think they would be able to do that?—I think with their general knowledge of commercial matters, and especially when it is coupled with a knowledge of machinery and ships, and that sort of thing.

3928. And you think their representatives ought to give evidence to that effect if they have the opportunity?—Well, I should think that that was a question for this Commission to say. I am afraid that I am not competent to express an opinion.

3929. You would not consider if they hesitated to come forward and give evidence it was because they thought they had no specific case they could put clearly before this Commission?—I do not know, Sir. You see, I do not represent them in any way. I could only say what my opinion was, and I do not think that would be worth much.

3930. (*Mr. Ennis.*) The general trend of your evidence has been that efficiency being the first consideration, economy is very desirable, and that the shipowners feel aggrieved with the weight that is pressed

* *Note.*—In a letter subsequently received, the Mercantile Marine Service Association wrote as follows:—"In 1891 we laid before Trinity House a paper contributed by Captain Wade, embracing the whole of the lights and marks in the Bristol Channel, and putting forward a programme of improvements. The Elder Brethren expressed themselves as being in sympathy with many of these suggestions, but want of funds prevented them from being carried out within a reasonable time. However, during the course of years, the improvements have been gradually made until with the establishment of the lightship on St. Govan's shoal during the present year, the programme will have been completed. The lights in the St. George's Channel have also been the subject of representation in 1892 and subsequent years. The Skerries fog-signal and light received attention in April, 1897, July, 1899, and December, 1902, and both have been considerably improved, the light especially. Bardsey Island and the Smalls in February and June, 1906; and the Smalls light has as a result been somewhat improved, although not to the extent desired. Representations have also been made from time to time to the Northern Lighthouse Commissioners and the Irish Lights Board for improvements in certain lights, marks and fog-signals, although not always with success."

Captain W. S. Wade. 26 Feb. 1907.

upon their shoulders by the cost of the lighthouse administration of the kingdom. Now, with regard to your suggestion, or the suggestion of the shipowners, to place the burden upon the taxpayer, has it occurred to you that that, if carried into effect, would mean making the foreigner a present of £150,000 or £200,000 a year?—That is with reference to the light dues, Sir.

Light dues:

3931. Certainly, that foreign ships, not being taxpayers, would go absolutely free of charge altogether?—Well, that might be answered, if I might be permitted to say it, by saying that foreigners, with the exception of Turkey, do not charge us light dues.

Not levied by foreign countries.

3932. I see; it would be reciprocal?—So I do not think that we could very well complain of not charging them.

3933. Then another question is this, where you take the cost of this service so much to heart, or where the shipowners take it so much to heart, have you ever heard of serious complaints as to the lighting of the port of London, which is estimated to be somewhere between £40,000 and £50,000 a year, being placed on the General Lighthouse Fund, and the port of London being placed in that advantage over all the other ports of the United Kingdom?—I have heard the thing discussed, and I have always thought it an anomaly why the Mersey Docks and Harbour Board should take and light the coast down to Port Lynas, fifty-one miles from Liverpool, and put a fairway lightship ten miles from the Bar and another one close in to the Bar. I have always thought that, but still it is done, and it was done at the time probably when Trinity House did not go into these matters.

3934. But the shipping community at ports other than London feel it to be a hardship?—I have no doubt they do.

ELEVENTH DAY.

Tuesday, 5th March 1907.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Mr. R. Cooper Rundell, called in; and examined.

Mr. R. Cooper Rundell. 5 Mar. 1907.

3935. (*Chairman.*) You are the Secretary of the Association of Underwriters and Insurance Brokers in Glasgow?—I am.

3936. And are prepared to give evidence on behalf of that body?—On behalf of the Committee.

Association of Underwriters and Insurance Brokers in Glasgow: Constitution of,

3937. Will you describe to us the constitution of the Association?—The Association is an association composed of insurance brokers and underwriters, doing business very much in the same way as the Corporation of Lloyd's, in London.

3938. Is it incorporated?—No, it is not an incorporated body.

3939. At what date was it constituted?—It was constituted first formally in 1818, but it had been in existence some years previous to that.

3940. And the objects of the Association are generally analogous to those of Lloyd's?—Yes. There was a particular reference at the first meeting that was held forming the Association, that it was an Association also for protecting underwriters' interests in respect of wrecked property.

3941. Have the Association taken special interest in matters relating to the marking of the coasts?—Yes; throughout we find records in the minutes showing special interest in that subject.

Representations made by, to the Lighthouse Authorities.

3942. Can you decribe to us any steps that were taken at any time by the Association officially in connection with the lighting of the coasts?—It has made representations to the Boards, both to the Northern Lighthouse Board, and also to the Board of Irish Lights, on the subject of lighting, particularly on the Northern coast of Ireland and the Western coast of Scotland.

3943. Have those communications been frequent?—They have been from time to time, extending over a period of about 80 years. I have a number of instances—perhaps it would be troubling you to go into detail—but I could give you half a dozen instances where we have intervened.

3944. I think it is hardly necessary to go into those. Have you generally been able to secure the object on behalf of which the representation was made?—In the very first that I find a record of in our minutes, we apparently were successful in getting the object of our memorial complied with, that was a lighthouse on the Rhins of Islay, as I see in a subsequent memorial there is a reference to this light having been erected, showing that the original memorial had been successful. We went very fully into the matter of lights on the North-west coast of Scotland in 1893, and we submitted the question to our nautical adviser. He went very fully into the matter, and prepared a report, which was sent up to the Board of Trade. At that time Lloyd's were also making representations to the Board of Trade on the same subject.

3945. Why did you approach the Board of Trade rather than the Lighthouse Authorities, in that instance?—It was at the suggestion of Lloyd's. If I remember rightly, we were communicated with in the first place by Lloyd's intimating that they were making representations in regard to the lighting of the coasts, and asking us to support them by writing—I am now speaking from memory—to the Board of Trade on the subject.

3946. You did not approach the Board of Trade because, on other occasions, you had not found that communications to the Lighthouse Authorities had produced the desired effect?—No.

3947. The Lighthouse Authorities had always been ready to consider memorials that the Association had addressed to them?—I have been upwards of thirty years in the Association, but I do not remember during that period any direct representations by us to the Board of Northern Lights. We have had communications with the Irish Board, and put representations before them, and we have never found but what they were quite willing to take the matter into consideration.

Advice of, asked by Northern Lighthouse Board.

3948. Has your Association ever been consulted by the Lighthouse Authorities?—I only see a record on one occasion of the Board of Northern Lights having addressed us on the subject to ask our advice, and at that time the Committee of the period referred the matter to their nautical adviser, and also to others, and we approved of the course suggested by the Board of Northern Lights on this occasion.

3949. (*Admiral Henderson*). How long ago was that?—In 1862 the opinion of the Association was asked by the Commissioners of Northern Lights as to the erection of a harbour light on Dune Point, in Loch Indaal, Islay, and the Association, after consulting their own wrecking officer, and others, replied that, in their opinion, the light would be of great service. That, apparently, was in 1862. It was before my connection with the Association.

3950. (*Chairman.*) You say in your *précis* of evidence that, in addition to matters connected with the lighting of the coast, the Association has also a direct interest in the powers and administration of the General Lighthouse Authorities in connection with their duties under the provisions of the Wreck Removal Act?—Yes, we have a Salvage Association, in direct connection with the parent Association, the Association of Underwriters, and, of course, in carrying out the work we have a good deal to do with wrecks on the coast, and therefore we are particularly

interested in the powers granted for the removal of wrecks. I believe, with regard to the removal of wrecks, the General Lighthouse Authority have the control of the removal of wrecks, outside any Harbour Trusts.

3951. And have you any complaint to make of the way in which the Lighthouse Authorities have discharged that part of their duty?—None at all. I have no experience one way or the other.

General Lighthouse Authorities: Objections to constitution of,

3952. Is your Association satisfied with the present constitution of the Lighthouse Boards?—No.

3953. Will you state their views upon that subject?—My Committee are not satisfied with them, because they are not directly representative of the shipping interest generally. So far as the Trinity House is concerned, of course the active members there consist of Commanders in the Royal Navy and the Merchant Service, and to that extent, of course, the Board is qualified naturally by experience to attend to the lighting and buoying of the coast; but the other Lighthouse Boards, from the mode in which their members are elected, are not composed of men who are likely, from their experience and training, to be so qualified. Of course, you know the constitution of the Board of Northern Lights in Scotland. It is composed of lawyers mostly, lawyers who are there *ex officio*, and also of certain Provosts and Councilmen.

3954. Is your criticism of the constitution of the Board based upon general and abstract considerations, or have you any specific complaints to make of shortcomings that you think are directly traceable to the constitution of the Board?—No; indeed, so far as we are aware, their duties have been carried out with regularity and satisfaction. I have no information to offer on that ground.

3955. It is only on broad lines that you are dissatisfied with the existing constitution?—Precisely.

3956. So that, although you say that the Scottish Lighthouse Board and the Irish Lighthouse Board are, from the nature of their constitution, not composed of men who are likely, from their experience and training, to be qualified for their duties, their unfitness remains merely a conjecture?—Probably.

3957. Based upon the probabilities of the case?—Yes.

Suggestion or reconstitution of,

3958. You go on to say that, in the view of your Association, all the Boards should be more representative of shipping interests generally, and that shipowners, marine underwriters, and oversea traders should be represented. Might I ask exactly what you mean here by "oversea traders"?—Well, I mean shippers of goods by sea, both coastwise and abroad.

3959. You do not mention here shipping masters?—No, they are not specially mentioned, but certainly shipping masters would be qualified.

3960. They ought, in your view, to be included in any representation?—Any representation, I think, should include shipmasters.

3961. I wished to know whether the omission was deliberate or accidental?—It was not deliberate.

3962. That is the view of your Association, I understand, of the change they would like to see introduced if the present Lighthouse Authorities are maintained?—If they were maintained, yes; that they should be remodelled.

One Central Lighthouse Authority: Government Department advocated as,

3963. But I gather that you would prefer to any remodelling of the existing boards the transference of their whole duties to a Government Department?—Precisely, so as to be under the direct control of the State.

3964. You say that your Association further considers that the work being carried on by the three separate Boards, each constituted in a different manner and acting under different rules, is not likely to be conducive to economy in expenditure?—Yes.

3965. That, again, I suppose, is an inference?—An inference, yes.

3966. Not based on any actual facts that have come to your knowledge?—We do not know any actual facts to support that, but with three bodies really doing the same work, and under independent control, it is only natural to suppose that, if there were one central authority, having one system and one rule, matters could be carried out, such as staff arrangements and so on, in a more economical way than where you have three separate bodies for doing the same work.

3967. Your complaint with regard to the Scottish and Irish Boards, that they are not composed of men who are likely, from their experience and training, to be qualified to attend to the lighting and buoying of the coast, would, of course, equally apply to a Government Department?—Yes, but there, you see, we make the proposal that they should be assisted by a committee, which we believe would be competent to advise them.

With assistance of three Advisory Committees.

3968. That would be a committee analogous to the existing Advisory Committee?—Well, as I understand, the present functions of the Advisory Committee are very restricted; they are restricted merely to new works. For instance, they do not, I believe, advise the Board of Trade in regard to the management or superintendence of the Lighthouse Boards.

3969. Yes, but management and superintendence of Lighthouse Boards, apart from the question of where the lights should be placed, and of what character the lights should be, would not require any such special experience as you speak of?—Underwriters, of course—from wrecks occurring and matters of that kind—get to know the dangerous parts of the coast, and the parts of the coast they wish to see lighted.

3970. Yes, that would no doubt be relevant in the case of new works?—Yes.

3971. But it would not be relevant as regards general administration?—Possibly not, so far as existing works are concerned.

3972. How would the lighthouse committees which you would propose to attach to the Board of Trade—in the event of the Board of Trade being made the General Lighthouse Authority—be composed, in the view of your Association?—Well, Sir, my Committee are inclined to adopt the suggestions made in Mr. Charles McArthur's Bill.

3973. And that is——?—Shall I read to you the sections in the Bill relating to the committee?

3974. If you would be so good?—"Clause 6. The superintendence and management of lighthouses, buoys, and beacons on the coasts of England and Wales, and of Scotland, and of Ireland respectively, and also the powers and duties by this Act transferred to the Board of Trade in relation to local lighthouses, buoys, and beacons on those coasts respectively, shall be exercised by the Board of Trade, with the assistance of an English lighthouse committee, a Scottish lighthouse committee, and an Irish lighthouse committee, and the members of those committees shall form a General Lighthouse Committee for the purpose of advising and assisting the Board of Trade in all matters appertaining to the Board of Trade as General Lighthouse Authority."

"Clause 7: The members of the English, Scottish, and Irish lighthouse committees shall be appointed by the President of the Board of Trade, provided that a majority of the English lighthouse committee shall consist of persons representative of the shipping and mercantile interests and of the navigation of England and Wales, and a majority of the Scottish lighthouse committee shall consist of persons representative of the shipping and mercantile interests and of the navigation of Scotland, and a majority of the Irish lighthouse committee shall consist of persons representative of the shipping and mercantile interests and of the navigation of Ireland, and such persons shall be appointed upon the nomination of such shipping or trade or navigation associations, Harbour Authorities, bodies, or persons, as His Majesty shall by Order in Council prescribe." The only alteration that we can suggest in this clause 7 is that after "shipping" we should introduce the words "marine insurance." It would then read "marine insurance and mercantile interests."

3975. The idea is that a certain number of bodies should be declared, by Order in Council, privileged to nominate, and that out of the persons nominated by them the Board of Trade could select?—Yes. The next clause reads: "The Board of Trade may make rules prescribing the number of members to serve on the lighthouse committees, the manner in which they shall be nominated, the period for which they shall serve thereon, and the method of filling up vacancies caused therein by death or resignation." So that His Majesty, by Order in Council, would prescribe first the nominating bodies, and then the Board of Trade would ask those bodies for nominations.

3976. Mr. McArthur's Bill contemplates, I think,

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the transference of the expenditure on lighthouses to the State?—Yes.

3977. Is the constitution contemplated in that Bill one which your Association would wish to see adopted, whether the expenditure were transferred to the National Exchequer, or whether it remained as at present?—Well, I have not the voice of my committee on that, but so far as I know I do not think it would alter their opinion as regards the desirability of having an assistant committee in the same way.

3978. Would it alter your opinion as to the advisability of transferring the administration to the Board of Trade?—No; my idea is that the transference should still take place to the Board.

Board of Trade control over Lighthouse Boards.

3979. You say in your *précis* that the Lighthouse Boards are at present independent of the State, and not subject to any superintendence and control in their general administration?—I believe that to be the case.

3980. You are aware, I suppose, that they are at present subject to the financial control of the Board of Trade, and that no new work can be undertaken except with the consent of the Board of Trade?—Yes, so far as the works are concerned, but in regard to their administration I understand that the Lighthouse Boards have full power.

3981. Are you aware that they cannot spend money without the sanction of the Board of Trade?—In connection with their ordinary management? I was not aware of that. I understood that in their administration they had control of the monies.

Central Lighthouse Authority: Advocated.

3982. (*Mr. Ennis.*) It does not come first in your *précis*, but I might follow the question of our Chairman. If you were to learn that the Board of Trade did possess effective control over all the financial operations of the Lighthouse Authorities, would that in your opinion alter the views expressed by those you represent as to this suggested change?—I think not. It is on other grounds besides just merely pure finance that it is proposed that there should be a central authority.

Northern and Irish Lighthouse Boards: Objections to constitution of,

3983. I am taking the question of the constitution first as you have been discussing it. You object to the constitution of the present Lighthouse Boards, but on what grounds? Is it on grounds of either efficiency or economy in their administration?—It was considered that from the way in which these gentlemen were elected they were unlikely to have the experience that was considered desirable on such a Board, and it was a very important Board carrying on very important duties. It is thought to be, therefore, very desirable that the composition of the Board should be a selected one.

3984. But you refer, I presume, not to Trinity House?—I am referring now more particularly to the Board of Northern Lights.

3985. And the Irish Board?—The Irish Board in the same way.

3986. The two outlying Boards?—Yes.

3987. Are you aware that these Boards, prior to obtaining the sanction of the Board of Trade to their proposed new works, must obtain the sanction of the Trinity House?—Oh, yes.

3988. So that, therefore, at the present moment the Trinity House does exercise an effective control, at least over new works, as regards the Boards which are composed of men who are not qualified by nautical experience for the position?—Yes.

Trinity House: Constitution of,

3989. And the Trinity House is composed of nautical men?—Yes.

3990. Have you any objection to the constitution of Trinity House itself?—So far as it is represented by those nautical men, I should think they would do very well for the purpose of selecting and discriminating as to what lights and buoys should be established.

3991. Are you conversant with the constitution of Trinity House?—No, I cannot say that I am. I understand that the care of the lights is under a department of the Trinity House.

3992. Are you aware that the members of the Trinity House obtain their positions by co-option?—Yes, they are self-elected.

3993. From the ranks of what are known as the Younger Brethren; co-opted by the Elder Brethren from the body of the Younger Brethren?—I understand that is the rule.

3994. And that they hold office until death?—Yes.

3995. No matter what age they attain. You are also aware, I take it, that membership of the Trinity House is a salaried post?—Yes, so I understand.

3996. And that the members of the Northern Lights and the Irish Lights Board receive no pecuniary advantage from their position?—Yes.

Central Lighthouse Authority: Advocated, with three Advisory Committees.

3997. In your suggestion of the reconstituted authority with the three Committees, we have at present three Boards in the kingdom, the Trinity House, the Northern Lights, and the Irish Lights, the Trinity House being salaried, the other two Boards being of an honorary kind, do you suggest that the committee by which you propose to replace these three Boards should be salaried or honorary?—I think, if I remember rightly, it is suggested that they should be remunerated. On that matter my Committee have really offered no opinion.

3998. It is, so far as the question of economy goes, rather an important point, because if the committees were to be anything like numerically equal to the present committees, the cost of their remuneration would necessarily be much greater than the cost of remuneration of one body only now?—That matter has not been under our consideration.

3999. But I put it to you that it is an important point, from the point of view of economy?—Oh, quite so, yes.

4000. Then I should like to get a little more in detail what your idea is with regard to the constitution of the committee. As our Chairman has pointed out, the Board of Trade at present exercises an absolutely effective control over finance. Monies cannot be expended without the sanction of the Board of Trade. You suggest that the Board of Trade should have absolute control, should be a State Department, absolutely controlling this service?—Yes.

4001. Do you suggest that the Board of Trade should look after the administration, or that they should simply possess a power of veto over the operations of the committees?—They should really have an administrative power.

4002. What officials of the Board of Trade do you suggest? What body should be created in connection with the Board of Trade to see after the administration of the service?—I think the idea was that it might be committed to the Marine Department of the Board of Trade.

4003. The administration?—Yes; for instance, at present in regard to looking after salvage matters, Receivers of Wrecks, I think, are under the Marine Department of the Board of Trade, and the removal of wrecks seems to be cognate to that of salvage coming on shore, which is at present under the Receiver of Wrecks. These seem all very much in the same line.

4004. But dealing with such a large coastline as the coastline of the United Kingdom, would not the Board of Trade require representatives at points very far distant from London to efficiently carry out the work of administration?—I have not given that matter consideration.

4005. For example, you have at the present moment three engineers, the Trinity House, the Northern Lights, and the Irish Lights?—Yes.

4006. Do you consider one engineer in London would be in a position to effectively supervise the work of the coasts of the United Kingdom?—I cannot say that my Committee have given that matter their consideration, how it would be dealt with, whether by one engineer, or by an engineer with assistants at sundry points along the coast.

4007. You do not wish to offer an opinion on that point?—No.

4008. How many members do you suggest these committees should consist of? But first, I may ask, what do you suggest the functions of the Scotch, Irish, and English Committees—the separate functions of these bodies—should be, apart from their joint function as a General Lighthouse Authority?—I am unable to express an opinion.

4009. I understood your suggestion to our Chairman

to be that three committees should be appointed—one for Scotland, one for Ireland, and the third the Trinity House, and that these three committees jointly should form a General Lighthouse Authority, to deal with the work of a General Lighthouse Authority; but what functions would remain for these committees independently of their functions as that joint General Lighthouse Authority, seeing that at present the Lighthouse Authorities in existence, the Northern Lights and the Irish Lights Boards, only fulfil the function of a General Lighthouse Authority, and have no control over local lighting, the lighting of harbours, and so forth?—It is only the general——

4010. They only act at present as a General Lighthouse Authority?—Yes.

4011. Consequently, you suggest that a composite body should be formed of those three bodies, to deal with the coasts of the United Kingdom. Now, what size do you suggest that the Committee for Scotland, Ireland, and England should be—what number of members?—That I have not considered; I am unable to give you a suggestion.

4012. And are you prepared to suggest the percentage say, as you do not suggest the number? Would you be prepared to suggest the percentage of the total number, be it what it may, that should represent these various interests which you specify here—shipowners' associations, underwriters' associations, shipmasters' associations, and chambers of commerce, etc?—No; these details I have really not considered.

4013. But they are important details?—They are.

4014. Of course, as our Chairman has asked you to state, if the incidence of the tax in connection with this service remains as at present, we understand that shipowners object to the present arrangement; that is a matter outside of our jurisdiction?—Yes.

Shipowners and Underwriters: Are agreed as to requirements of coast lighting.

4015. But it bears upon the question in this way: Assuming that the incidence of the tax remains as at present, would I not be correct to assume that the interests of the shipowners and the interests of the body that you represent—the underwriters—would be somewhat divergent; that is, that the underwriters would desire to see the lighthouse service of the coast as efficient as possible, with a view to the greater safety of the property for which they make themselves responsible?—Yes.

4016. Whereas the shipowners, being obliged to pay the cost, there is a tendency with a body of that class to economise—judiciously, certainly—and possibly to economise beyond the bounds of prudence?—Yes.

4017. I put it to you that a lighthouse body composed of the representatives of shipowners only might in the exercise of their duties possibly starve the service to a certain extent, with a view to economy, whereas the underwriters' associations would, I take it, have a different tendency?—Well, we have found this in the past—that shipowners and ourselves have been very much in unison with regard to requirements, and on several occasions when we have been taking the matters of lights up, the Shipowners' Association have communicated with us with a view to certain lights being adopted, and we have gone in for joint action; but, so far as my experience has been, we have never found shipowners' associations backward in supporting or coming forward with any suggestion for the general safety in respect to lights.

4018. You are aware that the present Advisory Committee is a body possessing no statutory power, but that they possess a large moral effect upon the administration, I think, goes without saying. It has been stated to the Commission that certain claims have been made by associations of shipowners and shipmasters with regard to lights of fog-signals in certain localities, and that the cost of the erection of these has been vetoed by the Board of Trade at the instance of the Advisory Committee?—I was not aware of that.

4019. If you believed that the Advisory Committee were adverse to an expenditure of a sum sufficient to keep the service in a state of high efficiency, you would not, I take it, be disposed to place too large a power in their hands?—Naturally, no.

4020. Do you wish to offer any suggestions with regard to the present lighthouse services on the coast of the United Kingdom, as to whether you consider them to be efficient in the comparative sense, or thoroughly efficient? Are you aware if your body desires any improvements?—No, I have no observations to make on that on behalf of the Committee.

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Wrecks:

4021. You are aware, I have no doubt, of the information contained in the wreck statistics on the coasts of the kingdom; that is a matter which touches your body very closely?—Yes.

4022. You are aware, I take it, of the number of vessels which have been lost on the coasts within the last twelve months, the last period for which the reports have been made?—I have not seen the report.

4023. And of the number of lives, which in my estimation is more important still, that have been lost. Are you aware that a total of nearly 1,000 lives have been lost on the coasts of the United Kingdom within the period covered by this last report?—I was not aware of that.

4024. That is a very heavy toll of human life?—It is.

4025. And you, I take it, would put it to the Commission that any expenditure within reasonable bounds that would tend to lessen that loss of life and property, or to safeguard life and property more efficiently, would be a wise and just expenditure?—Decidedly.

4026. I should just like to ask another question on the point I have been dealing with before departing from it. You suggest that the work of lighthouse administration is a national work, and therefore should be under the control of the State?—Yes.

4027. But, as a matter of fact, is it not true that a great national work, the work of life saving, with equal force, a claim might be advanced that it should be an affair of the State, and yet it remains in the hands of a voluntary institution such as the National Lifeboat Institution?—Well, it is under a different category; it is supposed that common humanity would go to help to the recovery of life, while there might not be that attention to property.

4028. But I take it that the lighthouse service on the coasts of the United Kingdom, though extremely efficient for the purpose of saving property, is primarily designed for the purpose of saving life?—Possibly, yes.

4029. With regard to wreck removal and appliances, you lay stress upon the importance of that, and I quite concur with your view. Do you know whether the existing Lighthouse Authorities possess any special appliances for that purpose?—I do not know whether they have or not. Of course, they have these little vessels, these steamers that go out with stores, and for repairs and so forth, but I do not know whether they make use of them in any such way; I have no information on that point.

Removal of,

4030. Of course, you are aware of the class of vessels employed by the Liverpool Salvage Association, vessels of that type, and vessels fitted with extremely powerful appliances, which would not be found on board any ordinary vessel?—Yes.

4031. You would be in favour at present of any authority, whether the present authority, a reconstituted authority, or an authority modelled on other lines—you would, I take it, be in favour of a reasonable expenditure for providing special steamers or special appliances for wreck removal, seeing how important such removal would be for the general interest?—I do not know that I would go quite so far as that, because I think, as a rule, there are contractors and associations for carrying out that special kind of work, pretty well distributed round our coast, and some equipped Harbour Authorities, and the General Lighthouse Authority no doubt would be in the position to avail themselves of the services of these associations or contractors for doing that work, these contractors having special appliances requisite for carrying it out.

4032. Well, I put it to you this way, that a wreck may either be a valuable wreck or a non-productive one?—Yes.

4033. A valuable wreck will undoubtedly be dealt with at present by the Salvage Association, but an unprofitable wreck they will certainly not touch, unless paid for doing so by somebody?—Precisely.

4034. And your contention, I take it, would be, not that the Lighthouse Authority should provide steamers and appliances of their own, but that they should be legally entitled to retain the services of salvage associations for wreck removal, and to pay the

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cost of such removal out of the funds of the Board?—Yes; I think that is the course at present.

4035. (*Admiral Henderson.*) How long have you been Secretary to your Association?—Rather over 30 years.

Underwriters: Associations of,

4036. I wanted to ask, is there any other association of underwriters in the United Kingdom besides yours and Lloyd's?—Yes, there is the Liverpool Underwriters' Association.

General Lighthouse Authorities: Reconstitution advocated.

4037. Supposing it were shown that the Irish and Scotch Boards were relatively more economically efficient than the Trinity House, would you still hold the opinion which you have advanced?—Oh, yes; it is not on a question of economy merely, but for the effective carrying out of the work we think it is desirable that there should be a change.

4038. Supposing it could be proved that the Irish and Scotch Boards were as efficient as the Trinity House, would your opinion still hold good that you have advanced in your evidence?—Well, that would be saying that the Trinity House was perfectly efficient. I would not like to go so far as that.

4039. Now I want to ask a question which has been, in a form, put before. Does not the Board of Trade exercise the control you ask for by the State in a sufficient degree?—I understood, of course I am subject to correction, that the Board of Trade have no actual control over the administration.

Control of Board of Trade over,

4040. But are you now aware that even for administrative purposes none of these Boards can spend even more than a £5 note without the sanction of the Board of Trade?—I was not aware of that.

4041. And that the Board of Trade examines their estimates and passes them?—I understood they have a sort of audit survey of the accounts. I suppose they have the power to warn the Lighthouse Boards in the future, but would have no power over the current expenses, the expenses under review.

4042. But are you aware that the whole of the current expenses come before the Board of Trade for review, and are passed by them before they can put them into execution in the form of estimates?—No, I was not aware of that.

4043. I ask again, in what manner in your view are the present Boards independent of the State; of course being governed by the present Board of Trade control?—They have each an independent organisation, I understand, for carrying on the work quite irrespective of any control.

4044. I do not think it is so. The Board of Trade examine closely their estimates and go into every detailed question connected with them, and exercise the paper control that it is possible for a Government Department to carry out?—I did not understand it went so far as that.

4045. Yes, it does?—That it was arranged on estimate.

Central Lighthouse Authority:

4046. Given absolutely State control, in what manner would you propose to devolutionise the administration?—Well, the idea that was in my mind—but it has not been discussed by my Committee at all, I have not the authority of my Committee for saying so—was that it could be arranged for through the staff of the Customs, just in the same way that the Receiver of Wrecks is very often the Collector of Customs, and he has the duty of acting as Receiver of Wrecks in regard to salvage matters, so that there would be also a staff at the Custom House that could attend to the question of lights. Of course, they collect the dues at the present time, I believe.

4047. Do you propose to put the control of the local lights on to the Customs in all respects?—I would not say under the Customs, but under the Board of Trade, perhaps through the organisation of the Customs.

4048. Do you not think the Customs have got quite enough to do as it is?—That I cannot say; I do not know. These are details that I have not really given any consideration to.

4049. In regard to this question of State control, you would be obliged to have a board, a committee, a general committee?—Yes.

4050. And expert officials; you must have expert officials to carry on the work?—Yes.

4051. And experience generally shows that when a State takes up work of this character it costs a great deal more than if done by independent authorities?—I was not aware that that was the case.

4052. Well, generally speaking, the State gets hauled over the coals for expenditure, and I think most of us who have experience of control of large sums of money connected with the State find that the State is made a target of, and constantly gives in, and, on the whole, the cost of control is really greater if done by the State than if carried out by an independent authority who is responsible to the public?—Yes.

4053. That is a personal opinion, of course?—Quite so.

General Lighthouse Authority: Objections to constitution of,

4054. Now, you have put forward an objection here, and I want to know if that objection would stand if the shipowners were represented on the Government body. Your objection, I think, is at the bottom of page 2 of your *précis*, "The fact of the Lighthouse Boards being independent of the State, and not subject to any superintendence and control in their general administration, is considered objectionable"?—Yes.

4055. Now, I ask, would your objections stand if the shipowners and the underwriters were represented on the Government bodies?—Yes, but I should think that such representation would be of advantage.

4056. Your opinion that the administration by three Boards having different systems cannot be economical is a general one, or is it based upon any statistics?—Just a general one.

4057. Would you concur, given the financial control of a purely representative board, if the administrative work was carried out by a small committee of this board, assisted by proper experts?—I think my Committee would be likely to agree to that suggestion.

4058. Have you any statistics you wish to produce at all?—No.

4059. Have you any specific complaints to make against the Boards?—None.

4060. You would suggest that any administrative reforms should be towards greater economy than you imagine there is at present?—Certainly it is desirable.

4061. In reference to the question that was put to you just now by Mr. Ennis as to the loss of 1,000 lives, of course that statement requires to be analysed as to the amount which is due to inefficient lighting or buoyage?—Yes.

4062. Many lives are lost on the coast in collision—I think they all go in here—which have nothing to do with the lighting and buoyage, and the whole of these wreck statistics, before they can be accepted from our point of view, must be strictly analysed as to what are due to inefficient lighting or buoyage, and of course, again, in many cases incompetence. Have you got any more points you wish to put before the Commission?—Nothing else.

United Kingdom: Efficiency of lighting of coast of,

4063. (*Sir Frank Adam.*) I gather that, so far as lies within your knowledge, the opinion of your Association is that, speaking generally, the lighting of the coasts of the United Kingdom is efficient?—Yes. There are, of course, some suggestions that my Committee have made that have not been carried out. In this letter that they wrote to the Board if Trade, for instance, some of the suggestions were not carried out, and other lighthouses were erected in place of those suggested; but, on the whole, they have no reason to complain, I think.

4064. Have you found out that in recent years suggestions have had fuller consideration and been more rapidly carried out than in previous years, going further back within your recollection?—That I really cannot pass an opinion upon.

4065. In regard to a question, on the other hand, of economy of administration, you do not propose to offer any specific evidence?—No.

General Lighthouse Authorities: Objections to constitution of,

4066. But I understand that upon general grounds your opinion is that if the lighting of the coasts has been practically efficient under the present administration, and if it has proved to be economical, that is in spite of the present constitution of the Boards?—Yes.

4067. And that the system upon which the present Boards are appointed is undesirable?—Yes; I think it is possible that they have been fortunate in their

executive. Take the Board of Northern Lights, the members of which are really *ex officio*—these lawyers, for instance—the mere fact of a lawyer becoming a Sheriff of one of the Maritime Counties giving him a seat on the Board naturally makes it an accident whether that man has any nautical experience or not, and therefore it is a Board that must very much depend upon their Engineer and other executive officers, and I think they have been possibly fortunate in having good officers; but it is throwing a very great responsibility on an engineer, and, for an important function of that kind, perhaps too great a responsibility. I think it is very desirable that the men forming the Board should be men that would be qualified to go into questions with that Engineer, and discuss them with a little more equality than there is at present.

4068. Then I take it that you consider that efficiency of administration under the present system of the Scotch Lights and the Irish Lights has been owing to the fact that they have had in past years able, zealous, and competent Secretaries and Engineers, and that does not affect the view you take of the undesirableness of the present system, because the day might come when they had not such competent men in charge?—Exactly.

Underwriters: Representation of on Lighthouse Authority advocated.

4069. I understand in any new body to be formed you wish that marine insurance societies should have representation?—Yes.

4070. Have you in view, in asking that, the power you would have of operating as a certain check on the danger that Mr. Ennis has pointed out, of the shipowners being over-economical in their expenditure in regard to lighthouses?—No, I cannot say that that has been before us at all. As I said before, we have always found, as far as we have had experience, that shipowners have been quite ready to go along with us in any proposals with regard to new lights.

4071. But you admit you have a more direct interest, perhaps, in multiplying them than the shipowners?—Yes.

4072. But if the claim that the shipowners put forward to have representation is because they pay the dues, where do the marine insurance people come in in that regard?—Well, of course, they have nothing to do with the payment of the dues.

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4073. Therefore it would not be representation on account of payment?—On account of payment, no.

4074. But a more general representation, which your Society would advocate in the interests of Executive Administration?—Yes, in the general interests of safety.

4075. (*Mr. Ennis.*) I just want to ask one further question. In your suggestion for transferring the duties of the present three Lighthouse Authorities to this new body do you suggest that merely the area of their operations should be transferred or do you make any suggestions with regard to the powers at present exercised by local authorities, harbour authorities, for example, the Clyde authorities, as a most important body in your country?—No, the suggestion was merely in respect to the General Authority outside.

Local Lighthouse Authorities: Representation of, on Central Authority suggested.

4076. And would your suggestion as to chambers of commerce on that proposed authority cover harbour authorities. Do you not consider that such an authority as, say the Clyde Lighting Authority should have representation on the outside Lighting Authority, as many of the cases might or might not injuriously affect their interests?—That is that they should be represented?

4077. Yes. Do you consider that certain chambers of commerce sufficiently cover that; you would consider chambers of commerce and Harbour Authorities more or less identical bodies?—No, I do not consider that certain chambers of commerce sufficiently cover that, nor that they and Harbour Authorities are more or less identical bodies. The Clyde Lighting Authority has, I believe, representatives of the Glasgow Chamber of Commerce on its Board. But I think it does not seem inappropriate that the local lighting authorities should have some representation.

The Right Hon. The Lord RAYLEIGH, O.M., F.R.S., called in; and examined.

The Rt. Hon. the Lord Rayleigh, O.M., F.R.S.

Scientific Advisor to Trinity House: Duties of,

4078. (*Chairman.*) We desire to have your evidence as Scientific Adviser to the Trinity House. Would you be good enough to describe your relations to the Trinity House, and the nature of the work which you undertake for them in that capacity?—I was appointed Scientific Adviser in December, 1895, and the work that I have done in that capacity, I think, may be classified under four heads: (1) reporting generally upon schemes laid before the Trinity House by inventors, (2) attending committees charged with organising experiments, and taking part in the experiments themselves; (3) inspecting apparatus under construction, and (4) putting forward such suggestions as may occur to me and making investigations of a theoretical or experimental character which may have a bearing upon the future development of the subject.

4079. It is with respect to the last category only that you made suggestions on your own initiative?—Yes.

4080. In all other cases you are invited to make a report, or to attend the carrying out of experiments?—That is so.

Reports made by

4081. Could you give us a list of the reports made by you since you became Scientific Adviser?—I have a list here which was supplied to me from the Trinity House. I think it is fairly complete; not quite, however, partly because in some cases the experiments may have failed from one reason or another, so that I wrote no report; so that this list does not entirely cover the matters which have been before my attention.

4082. Perhaps you would be good enough to put in the list?—I can do it.

4083. Could you give us some idea of the kind of matter which is referred to you for report?—Perhaps I might read it as it is drawn up here, backwards, in order of date.

4084. If it is not very long, perhaps you might?—It is rather a long list, extending over the ten years.

4085. Would you read a few extracts from it?—The last appears to be the 13th July, 1906, and relates to the diaphone fog-signal. Report after visit afloat, etc., to attend experiments with diaphone fog-signal at St. Catherine's Lighthouse.

4086. That was a report upon experiments actually carried out at St. Catherine's?—Yes.

4087. Are most of these reports the results of actual experimentation?—Some relate merely to schemes put forward by the inventors. I think they are all included in this list.

4088. So that this list would include both the first and the second head?—Well, it might really include the third also, because after inspecting apparatus I have usually made a report.

4089. Yes, quite so; I see?—Shall I read some of the others?

4090. If you would be good enough to read some of the others to give the Commission an idea?—February 11th, 1905. Explosive fog-signals: Report after attendance at trial with gunpowder and aluminium mixed charges at Woolwich Arsenal. That reminds me that a subsequent set of experiments has been omitted, because as the result of these experiments at Woolwich Arsenal we carried out actual trials at the North Stack, I think it is, from Holyhead, in which the signal gun there established was fired alternately with the ordinary black powder charge which had hitherto been the practice, and with this new charge containing an addition of aluminium, and the result of these experiments was to show a very great advantage accruing from the addition of the aluminium in making the flash visible.

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4091. Was the suggestion to add aluminium a suggestion made by an inventor?—No; as a matter of fact, that was made by myself. We were investigating the Skerries fog-signal at the time, and a discussion came up about the gun signal, and it was remarked by someone that the Irish boats attached great advantage to the flash from the gun as well as, of course, to the report, the sound signal for which the gun was established; and I remember making the remark that if the flash was of value it would be easy to have a much more powerful flash than the black powder alone could give, and I think it was from that remark that these experiments took their origin. I could tell the Commission more about that if they wish to hear it. 25th November, 1904. Proposal of Mr. Azemar, of Holstein, Germany, to direct beams of light from lighthouse upwards during fog; also *re* wireless telegraphy. That was a case of a scheme put before the Trinity House by an inventor upon which they asked me to report, corresponding to the first head.

4092. Now, on a scheme of that kind you would report without thinking it necessary to make any experiments perhaps?—Yes; or else, of course, I might have to remark that I had not the knowledge sufficient to enable me to express a definite opinion. Shall I read on?

Fog-signals: Skerries experiments.

4093. Perhaps we might have one or two more instances which you regard as of somewhat more importance than the others?—14th October, 1904. Skerries Lighthouse (fog-signal). Observations *re* silent area discovered in vicinity of lighthouse after attendance at experiments with siren fog-signal. Those were experiments in which the Elder Brethren tried to see whether anything could be done to improve the fog-signal at the Skerries, of which there had been complaints. It is an extremely important station I think; nearly the whole of the Liverpool traffic goes round it. Complaints had been made of the insufficiency of the fog-signal, and the Elder Brethren were desirous, if possible, of improving the signal, and it was with that object that these experiments were made. Three signals were established on the Skerries in close proximity to one another. One was the ordinary service signal, the second was a somewhat similar one, but using a modified horn which had been introduced at my suggestion, and the third was an entirely different character of apparatus, modelled from the French. It was rather an instructive set of experiments. We had these three sounded within a few seconds of one another, and we observed the effect from the sea, steaming out in various directions, and the result generally was that in every direction the first two signals were not very different. I think there was a slight advantage on the side of the second, but both were very decidedly superior to the third. In fact, I think in several directions we were able to go out to such a distance that while the first and the second were still quite serviceable signals, the third was inaudible.

4094. (*Admiral Henderson.*) Were they carried out in fog?—No. It was rather curious, as illustrating the extreme difficulty of this work, that after these observations had been made and we were rather congratulating ourselves upon the unambiguous character of the result, when we went back to Holyhead the Deputy Master consulted, I think, a coastguardsman there, asking him whether he had heard these signals. Oh! yes, he had heard the three all the afternoon, and the third was the best throughout. That was, of course, in a direction where the signal was not wanted, back as it were from the Skerries, at Holyhead, and at a distance of seven miles. But it is perfectly inexplicable how that could have happened.

4095. (*Chairman.*) What was the date of those experiments?—1904.

St. Catherine's experiments.

4096. The classical experiments on fog-signals were those made at St. Catherine's, were they not, in 1902?—Yes.

4097. These were the most important experiments ever made on the various forms of fog-signals?—I should think they were since the experiments made by Tyndall.

4098. Could you describe to us those experiments, and the results obtained?—We had various types of instruments installed at St. Catherine's. There was, of course, the service signal, there were two sirens provided with eliptically-shaped horns of the kind that I had recommended; there was a reed horn on a model which had given satisfaction at Belfast, and which I think was very much advocated by the Advisory Committee of Shipowners; and there was also a very powerful Scotch siren provided with a large horn, and consuming a great deal of power. The results, I think, went to show that the sirens carried the day.

4099. As against the reed?—As against the reed. The reed is a very good instrument, but it was on a smaller scale than the sirens. It consumes less power, but the sound that it gave was quite inferior to that given by the more powerful sirens. I think it was in consequence of the observations made at that time that the eliptically-shaped horn has been adopted by the Trinity House and has been installed elsewhere.

4100. Did the experiments include careful observations of areas of silence?—So far as it was possible.

Causes of areas of silence of.

4101. Did you find areas of silence vary in different conditions of weather?—Yes. And, of course, that is the great difficulty. No doubt a great deal depends upon the condition of the weather overhead, so to speak, which the observer on the seas very often knows nothing about. Perhaps I may say generally that before I had the opportunity of being practically acquainted with these things I could not have believed that so much uncertainty could exist as experience shows does exist.

4102. You mean you would not have expected it on theoretical grounds?—No. It is a saying among the Elder Brethren that the more you see on this subject the less you know.

Diaphone experiments.

4103. Have you experimented with the diaphone?—Yes; the diaphone was brought over by Mr. Northey. I witnessed the experiments: it was not more than that. Mr. Northey is, I believe, now constructing another instrument which will compare more directly with the Trinity House instruments in that it will consume about the same amount of power. In these experiments in 1906 the diaphone did very well. It was a more powerful signal than the St. Catherine's service signal as we observed it, but it consumed something like five times as much power. Well, of course, we had never doubted that by putting more power into an instrument a more powerful sound could be obtained.

4104. That could be done with the service signal as well?—That could be done with every kind of apparatus, no doubt, so that in order to have a better comparison, Mr. Northey is preparing a diaphone which will consume about the same amount of power as the service signal. Then the comparison will be made under better conditions.

Difference between diaphone and siren.

4105. It is arranged that the comparison shall be made when this apparatus is provided?—I think it is arranged, as I understand, for the spring. I may say that I do not see on theoretical grounds any great difference between what may be expected from the diaphone and the service signal. In both cases there are elongated apertures through which the wind is admitted periodically, and in the siren these apertures are opened and closed by a revolving drum which passes over them. In the diaphone it is a piston which moves backwards and forwards, and so alternately covers and uncovers the apertures. One does not see *a priori* how the result should differ much in those cases if the same amount of power is used. There may be an advantage in the diaphone in that it may keep its pitch more accurately than the revolving sirens do.

4106. Is failure to keep the pitch a common fault of sirens?—It has been in the past; but now, I think, largely as the result of these experiments at St. Catherine's, Mr. Matthews has instituted a more regular inspection. He considers that more than very moderate variations are now excluded, but the tendency has always been, owing to wear of the brake by which the siren is governed, for the speed to increase, and sometimes, no doubt, it has had very deleterious effects upon the sound in past years.

Submarine bell experiments.

4107. Have you been concerned in any experiments with submarine bells?—Yes; I took part in one set of experiments—I do not think it is on this list, though—in which the bell was established on the Goodwin Lightship and was observed from the "Irene."

4108. Those experiments were instituted by the Trinity House?—Yes.

4109. How long ago was that?—I think about two years, or a year and a half. The observation is made by telephones on the bridge of the steamer, the sound being conveyed to the telephones from microphones

attached, one on each side of the ship, close to the skin. The sound was very well heard through these telephones on the bridge, and a good judgment could be formed as to the bearing of the bell by the relative loudness of the sound as heard from the two sides of the ship.

4110. Those experiments were hardly sufficient, I suppose, to draw any definite conclusion from?—So far as they went they were quite satisfactory. Of course, it was only one afternoon. We varied the distance. I think we ran out from about one mile from the bell to three miles.

4111. Do you think it would be desirable that these experiments should be continued on a more extensive scale?—Yes, unless the results actually obtained in practice would supersede the necessity for special experiments. I believe now there is experience.

4112. But Trinity House has not, so far, undertaken any further experiments?—No. I think they had proposed it, but there was some difficulty about getting the money.

4113. Should you consider it part of your functions to press Trinity House to make experiments in particular directions?—Yes, if I thought they were neglecting them.

4114. But so far you have not had occasion to do that?—I think I have urged them to give attention to what may be done by wireless telegraphy signals, but as a rule it has been sufficient for me to express an opinion, I think, for the Trinity House to take the matter up.

4115. That would come under your fourth head, occasional suggestion of matters that may deserve attention?—Yes.

4116. Have you kept a record of those?—I am afraid not. I could refer to certain publications of my own in which various ideas had been developed, and which, as I say, may have a bearing upon the future development of the subject.

Rayleigh horn for sirens, introduction of,

4117. Those are ideas which you have arrived at on theoretical considerations?—Partly on theoretical considerations, and partly on the ground of private experiments made at home. The elliptical horn was introduced in that way. The idea came from theory. Then I made experiments, of course, on a very small scale, and so, perhaps, not adequate, but still very instructive experiments, using very high-pitched sounds which allowed the scale of the apparatus to be reduced, and I was able in that way to say that considerable advantage attended the use of the horn with an elliptical section, and so to recommend it with more confidence for a trial on a working scale.

4118. And you think that actual experience, as a matter of fact, has confirmed the theory in this instance?—It has. You mean the experience on a working scale?

Difficulties as to experimenting with,

4119. Yes?—Yes; but I may say these experiments are exceedingly difficult, there are so many changes in the weather, or one thing or another, that it is exceedingly difficult to get good comparative results on a large scale. On a small scale it is easy, because one can repeat them as often as one chooses. Where one has to go a considerable distance to a place like St. Catherine's—of course, all those stations are almost necessarily at out of the way places—if the weather happens to be unfavourable at the time there may be a difficulty in finding another opportunity to repeat the experiments.

Lighting Apparatus: Inspection of new,

4120. Are you often called upon to inspect new apparatus?—Yes, most of the new optical apparatus I inspect before it is passed, usually at Birmingham.

4121. You inspect it before it is installed?—Yes, before it leaves the works. I have also inspected apparatus in Paris for the Trinity House.

Experiments.

4122. (*Mr. Ennis.*) With regard to the question of experimental work generally, are you aware whether our Lighthouse Authorities, taking them as a whole, or the Lighthouse Authorities of foreign countries, such as France and others, are more lavish or generous in their expenditure with regard to experiments than ourselves?—I have understood that more money is devoted to the subject in France, but I have not much direct knowledge.

4123. But you would approve of a liberal expenditure on experimental work?—I think there are cases where more money might be spent with advantage, but it is not only a question of money, it is a question of the attention of the engineer and the staff.

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4124. Quite so; but you are aware, I take it, that with regard to two classes of apparatus that you have told us of, that is the diaphone and the submarine bell, they have been in actual use on the coasts of America and Canada for some two or three years past?—Yes.

4125. And they seem to be satisfied with the results obtained there, especially with the submarine bell?—I believe so.

Fog-signals: Advantage of submarine bell,

4126. In view of the difficulty which we have already heard a good deal of, and which we now have your valuable opinion concerning, as to the areas of silence, and the fact that they are not constant, would not the submarine bell, if generally adopted, be a great improvement over sound signals, inasmuch as it does not seem to be liable to any such defect as the area of silence?—I think there is reason to suppose that the working of the submarine signal would be more regular, but perhaps there has hardly been sufficient experience of it yet to state that as an actual fact from observation. I have always felt that the submarine method has great advantages. The irregularities which attend the propagation of the sound signal through the air no doubt depends upon two things. It depends upon the fact that the temperature in the air varies—it may be different overhead to what it is upon the ground—and upon the wind, which acts in an indirect but a very potent manner, either favouring or interfering with the propagation of sound to a distance. Well, in both those respects one must expect water to be a more favourable medium than air. In the first place the differences of temperature in water would be much less than in the air, and even if they occurred, they would produce less effect on the density of the water. The air, of course, is exceedingly sensitive in respect to changes of temperature. Again, although there are currents and tides in the water, the velocity of them is a good deal less than that of the currents in the air which we know as wind.

4127. You have said that the bearings can, to a certain extent, be judged by the intensity of the sound on the port or starboard side of the ship. Can you in any sense measure the distance by the sound?—Are you speaking of submarine signals?

4128. Submarine signals, yes?—I suppose it could only be by an estimate of the loudness.

4129. Of course the submarine signal has one disadvantage, in so far as it cannot be made useful to any ship which is not fitted with the microphone and telephone?—Not as I have described it; but I may mention that the bell can often be heard from the inside of the ship without the special fitting of microphones and telephones.

4130. But in any case I take it that the fitting of the microphone and telephone needed for the purpose is a matter of trifling cost—of comparatively trifling cost?—Of trifling cost for a large ship, certainly. I am speaking of the inherent cost.

4130a. And for vessels engaged in cross Channel passenger service, and large ships of every class, it is an appliance which, if installed in the lightvessels round the coasts of the kingdom, would practically mean, I take it, that every ship of reasonably large tonnage would immediately be fitted with the appliances to enable it to utilise the invention?—I should suppose so, if the present anticipations of success were confirmed.

4131. Are you aware whether the presence of a sandbank or shoal between the bell and the vessel would have any effect in preventing the sound travelling?—By altering the depth of water?

4132. The depth of water?—I should suppose it would, if the depth at low water over the shoal was very limited.

Difficulties of experimenting with,

4133. The difficulty with regard to adequate experiments as to fog-signals, I take it, also is that these experiments can only be conducted with accuracy in a heavy fog, and that when carried out then they run the risk of misleading vessels and causing casualties?—We never practically attempt such experiments in times of fog; it would hardly be safe to ourselves to do so. And besides that, in time of fog the service

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signal is necessarily in use for its proper purpose, and of course is not available.

4134. What I meant to convey is that it is practically impossible to carry out experiments in fog for the reason that you had said that the service signal is in use and that vessels might be misled by it?—Yes.

Lighthouses: Value of beam of light projected upwards from,

4135. And therefore you cannot obtain, with experiments of that kind, the maximum amount of information which you desire?—That is so, but I have always thought that the probabilities were that the signals would be better in time of fog than they are at other times, owing to the greater stillness and uniformity in the condition of the air.

4136. Can you tell us your opinion upon that point; the suggestion made by—I forget the name of the Engineer—you gave us in November, 1904, as to beams of light projected upwards in fog; as to what conclusion you arrived at as to the value of that suggestion?—I think so much would depend upon the precise condition of the atmosphere. If there was a cloud overhead just over the light ready to receive a beam that you were projecting upwards, no doubt that would be a very efficient means of working, and it might happen that the light reflected from the cloud would reach a distant observer better than a light sent direct from the station in his direction.

4136a. But all that would depend entirely upon accidental circumstances. It could not be relied upon as a constant quantity?—Of course, it often happens that the beam sent in a horizontal direction from the lighthouse is seen overhead by an observer below the horizon from the lighthouse.

4137. At sufficient distance for the horizontal beam to be projected?—Yes. Perhaps in some cases the observer may not appreciate exactly the conditions under which he is seeing the light—the powerful electric lights which are now installed at no very great heights—because, in respect of fog, it has been considered the better policy in recent years to keep the lights rather low. These powerful lights could be seen, so far as their intensity is concerned, to distances vastly greater than those at which they sink below the horizon, and under those conditions a beam of light is frequently seen overhead by an observer who cannot see the light itself.

Illuminants: Relative values of,

4138. With regard to an illuminant, what is your estimate of the relative value of electric light, vaporised oil, and acetylene?—There is no doubt that the electric light is more powerful; but whether the advantage corresponds to the cost, especially since the improvements that Mr. Matthews has introduced in the use of oil, I should think doubtful.

4139. But putting to one side the fact of cost, the electric light is the more powerful, and for certain stations, such as the Fastnet, off the coast of Ireland, which vessels make coming in from the Atlantic, it would be desirable that they should see the light at as great a distance as possible?—Yes. I think one must distinguish between what happens in fair weather and in dirty weather. Of course, in fair weather the electric light can be seen to enormous distances, and sometimes that is a convenience for navigation. But in dirty weather, when the danger is of course more imminent, the difference of distance to which the light is serviceable is not really so great.

4140. But still it is in dirty weather that the enormous candle-power obtainable by the electric light is so important. I take it that for practical use the electric light can be installed to carry further than any other form?—I think so, especially perhaps the new flame electric arc, in which the colour is yellow.

Wireless Telegraphy: Possible development of, for lighthouse purposes.

4141. With regard to wireless telegraphy, you have suggested it as a useful aid to navigation. What is the method that you would suggest for its adoption. I mean it has been stated that it has the defect that though you may receive a signal from a particular station, you have no means of ascertaining how distant that station is from you, that it may be 100 miles, or it may be 800 miles?—Of course, it is no use to receive a signal unless it tells you either the distance that you are from the place from which it was sent or the bearing, approximately.

4142. Quite so?—I should have thought that it might be possible to develop a wireless signal, in which you could infer the distance roughly. Of course, the signals would have to be specially designed to that end, so as not to be perceptible at too great distances.

4143. I am glad to have your opinion that it is a scientific possibility to create a signal in which you can approximately gauge the distance?—One does not like to speak too confidently of a matter of that sort until it has been tried, but I do not see why there should be any insuperable difficulty in doing it. After all, we have that difficulty in all the signals, whether they are sound signals through the air or sound signals through the water.

Illuminants: Relative values of,

4144. (*Admiral Henderson.*) Do you advise the Trinity Board on the form of the illuminant, as well as the form of the apparatus?—No, I can hardly say that I advise them usually on that subject. They have their own views as to the necessities of the case, and I do not think I have ever been consulted as to the particular form to be adopted, except as regards details at a later stage.

4145. And is it your opinion that the practical point of view of the question of illuminants is a matter of economical efficiency?—Yes.

4146. It is true that you may on certain conditions get an electric light to a greater distance of visibility than any other form, but it is entirely a question of position and place and economy?—Yes. I may say that I do not myself understand quite where the advantage of the very powerful lights that have been installed on some parts of the French coast comes in. The distances for which they are wanted are comparatively small.

4147. Well, I concur with you. I speak as a sailor, and you do not want to see a light too far off; it becomes a nuisance to you?—But I presume at such a point as the Lizard, or St. Catherine's, it is an advantage to have the most powerful light you can get. I dare say it is well known. I happen to have a son in the Navy, who serves as a navigating lieutenant, and he has told me that it is not uncommon now on coming home to see both Ushant and the Lizard at the same time.

4148. Well, I believe they can. Do you consider that the coast of England and Wales is efficiently lighted at the present moment, within your knowledge; is it within your knowledge at all?—That is a nautical question on which I could hardly express an opinion.

Experiments

4149. (*Mr. Ennis.*) I just wish to ask you would you consider it desirable that the Lighthouse Authorities, jointly or individually, should offer, as it were, inducements to inventors in the direction of appliances that they may find it desirable to perfect and improve?—In what way would you suggest that they should do that?

4150. At present I may take it that if an inventor makes any invention, or constructs an apparatus, you are willing to consider the merits or demerits of his proposal?—Yes.

4151. But what I suggest is if you take, say, sound fog-signals, admittedly there are difficulties to be overcome; do you consider it would be desirable that the Government or the Lighthouse Authorities should be prepared to intimate their willingness to make it worth an inventor's while to overcome that difficulty; to offer an inducement to inventors to go to work on the problem?—By promising a reward?

Experimental establishment under Trinity House advocated.

4152. A monetary award?—I could imagine that that might work well in some cases. Again, there is the question of an experimental establishment under the Trinity House, or the Lighthouse Authority itself. I have sometimes spoken on the subject to the Elder Brethren, and I have thought that if it were really desired to push the development of fog-signals, for instance, as quickly as possible, that such an experimental establishment is wanted, and that it ought to be instituted in some more accessible situation than St. Catherine's or the Skerries. Across the mouth of the Thames, for instance, it would be possible to make observations. There might be a station somewhere near Sheerness, which would be conveniently accessible from Blackwall, and observations, whether of sounds or lights, could be made from the other side of the Thames.

4153. Do you consider that the money expended on such a service would be money well spent?—It is very difficult to give an opinion about that. I may say that if it were not that I have been always

rather sceptical about the possibility of getting over certain difficulties, depending upon silent areas, and so on, I should have been more urgent in pushing experiments in the direction of improving the force of sound signals; but I have always felt discouraged by the fact that whatever we do, we shall be met by this difficulty. It might even be argued that it is misleading to institute signals which one day are audible to a very great distance, and the next day cannot be heard at all at perhaps two miles.

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4154. (*Admiral Henderson.*) Do you consider that from a scientific point of view the Trinity House are up to date?—I think I may say that.

4155. Fairly; as they may be governed by economy, I suppose?—I think I may say that generally.

TWELFTH DAY.

Tuesday, 19th March 1907.

PRESENT:

The Right Honourable G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Commander G. C. Frederick, R.N., called in; and examined.

Nautical Adviser to Board of of Trade: Duties of, in connection with the Lighthouse Authorities, as to New Works,

4156. (*Chairman.*) You are the Nautical Adviser to the Board of Trade?—Yes, Sir, and an Associate of the Institute of Civil Engineers.

4156a. You are also a commander of the Royal Navy?—Yes.

4157. Will you describe to us your duties in connection with the administration of the three General Lighthouse Authorities, in the first place as regards new works?—With regard to new works, my duties are to advise the Board generally as to the importance and utility of any works brought before them, from a navigational point of view, and I have to refer also to the question of whether the works are urgent or not, so that they may be able to form an opinion as to the desirability or not of the works being undertaken at an early date. In doing this I am naturally influenced by the knowledge that the Lighthouse Authorities have had the consideration of their respective coasts before them as to the lights or navigational marks which are required in the interests of navigation, and that they would naturally put forward in their estimates or bring before the Board of Trade those works which were considered of most importance, and therefore I can look at the questions from the point of view as to how far they will be a benefit to traffic, and whether they are in positions which are apparently the most suitable.

4158. That is to say, that in forming a judgment you take into account that the Lighthouse Authorities are in an exceptional position to form a sound opinion upon the question whether any new mark should be put up at any part of the coast?—Yes, they have the requirements of the whole of the coast before them, and they also have the applications received by them from time to time from various bodies, requesting improvements or the installation of a new lighthouse, and they can therefore judge fairly as to the necessity of the work before putting it before the Board of Trade.

4159. Your natural attitude of mind, therefore, would be to agree with the representations made by the Lighthouse Authorities, unless there was, in your opinion, a clear case that they were wrong?—Yes, as a general rule, but there have been cases in which I have thought that it was unnecessary to proceed with certain works, at any rate, for the present. I think, perhaps, you may remember one case, Sir, in connection with Strathie Point in the north of Scotland. The Northern Lights Commissioners required that light on the north coast, and it was a point on which I thought it was unnecessary, at any rate, taking into consideration the importance of other lights, and the necessity of the expenditure of other sums upon what might be of more use to the general navigation. In that case it was deferred.

4160. In that case was there not a difference of opinion between the Scottish Lights and Trinity House with regard to the proposed light at Strathie Point?—Yes, that was also objected to by the Trinity House, but at the time I drew up my report irrespective of the views of the Trinity House. The opinion was practically endorsed by Trinity House subsequently.

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4161. As a matter of fact, the view taken by the Trinity House and your own opinion coincided?—Yes, I only quote that as a case in point, in which there are occasions on which I might suggest or report to the Board of Trade that the expenditure of a large sum of money was hardly necessary at that time.

4162. I think the Advisory Committee on that occasion also took the same view, did they not?—They did.

4163. So that the Scottish Lights stood alone against the Trinity House, yourself, and the Advisory Committee on that occasion?—Yes, I did not wish to draw any particular attention to the Scottish Authority as you understand, but it just happens to be a case in point.

4164. There may always be differences of opinion on these points?—There have been other cases, but I only mention that one, as it came within your knowledge.

4165. Speaking generally, however, you have found yourself agreeing with the views taken by the Lighthouse Authorities?—Yes; sometimes I have made suggestions as to some other form, or perhaps a modified form of light, and it has been subsequently agreed to by the Lighthouse Authority, in lieu of, perhaps, some more expensive light that they have proposed.

as to appeals from Scottish and Irish Boards.

4166. Have you any observation to make upon those cases where Trinity House have been unwilling to accord their statutory approval?—Do you wish me to mention any specific case that I think——

4167. No?—There have been cases in which the Trinity House have not been ready to give their statutory approval and on being referred to me, on some occasions I have agreed with the Trinity House, on other occasions I have supported the other Lighthouse Authority. I may say that, of course, in forming an opinion on these cases, I have to obtain if possible further information as to the requirements of the locality and so on. My advice is not given as an arbiter on the spot without really looking into the matter carefully.

4168. Then, before a decision is finally taken in any case, the matter is discussed at a conference held between the Lighthouse Authorities, the Advisory Committee, and the Board of Trade?—Yes.

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4169. And the President of the Board of Trade has an opportunity of hearing the case argued out there, and also has the advantage of your opinion?—Yes.

4170. And on all those materials he forms his own final decision?—His own final decision. I may say that at the close of the Conference it has not always happened that all the cases put before the President have been agreed to or settled. Sometimes questions that arise on these estimates are deferred for further information and for intercommunication with the Advisory Committee, and those cases are settled later on. They are referred back again to me, and I give my advice on the matters in point.

4171. Those are often cases in which the President does not feel able to decide on the information before him, and desires more information to be supplied either by the Lighthouse Authorities or by the Advisory Committee?—Yes. I have just referred only to the lighthouses; of course, that refers to all new works.

4172. I was coming to that. There are three items which come under the head of new works—construction of buildings in connection with lighthouses, new buoy or light stores, and new lighthouse tenders—that do not seem to depend upon navigational considerations?—No, except as regards, sometimes, lighthouse tenders, as to whether the class of vessel proposed to be built is considered too extravagant; I have had to give my opinion on one case. There was a modification on that occasion in the cost of the vessel eventually.

4173. Questions involved in connection with those heads are rather questions of expenditure?—Yes, quite so.

4174. Than nautical questions, properly speaking?—Yes; of course, as regards lighthouse tenders, in that particular case which I referred to, the old vessel was reported unsuitable for her work, and that, of course, was a nautical question.

As to maintenance of seamarks.

4175. Next, as to works of maintenance?—The works of maintenance are those which are generally submitted to the Board of Trade annually by the three Lighthouse Authorities. Long lists are sent in of works that they propose to carry out in the ensuing year, and I criticise them; that is to say, I look at them carefully, and unless there is anything very special in the shape of considerable expenditure on any particular work, I naturally am disposed to pass them. I cannot criticise very deeply matters such as the reconstruction of small works, the painting of buoys, the painting and repairs to lighthouses, and so on. Those are items which must be left to the Lighthouse Authorities who have before them the requirements of the services in all these petty details, and therefore, as I say, unless there be some very large expenditure, I do not seek for further information before passing them.

4176. Do the Lighthouse Authorities submit proposals for maintenance to the Board of Trade with a reasoned explanation?—Yes, if there is anything special they give a full detailed account of why they are required, or if they do not give sufficient we ask for it. There may be cases which come before the Board of Trade in that way when they ask for sanction for certain works, and they give the full details of how they are to be carried out, but the cost, as you can understand, is a matter that I am not quite in a position to criticise, as it depends on contractors' tenders, the cost of materials, and so on. That must be dealt with by the Lighthouse Authorities themselves and their experts. There are cases, of course, in which the estimates have been sometimes too low, and they have referred again to the Board of Trade for their sanction to the expenditure of a greater sum than that originally put down in the estimates, but that is not very frequent. One can quite appreciate that in lighthouse works, where the weather has so much to do with a good many of the works that are carried out, that it is not always possible to give an absolutely accurate estimate as to the actual cost. They may find that bad weather has prevented them landing, for instance, on some of these lighthouses, and so on; that there has been a great deal of delay, and that the work has cost more. Or in the case of lightvessels coming in for repairs, when they have opened them out they find a great deal more work to be done than was anticipated—dry rot, and so on, has taken place.

4177. Where the cost has exceeded the estimate I presume it is the case that the Lighthouse Authorities are always expected to give an explanation?—Oh, yes, they do, and they give very full, detailed explanations, sending in the reports by the engineers and shipwrights, and so on.

And as to experiments.

4178. Lastly, as to experiments, what are your duties in connection with those?—Experiments come before me to advise on as to the desirability of sanctioning the expenditure in connection with them. There have been cases where the expenditure has been large, and it has been thought desirable to put them down in the form of new works, such as, for instance, the experiments where large sums are involved. We have had before us the cost of installation and experiments with submarine signalling apparatus, and this has been discussed with the Advisory Committee. There are other smaller cases which can be looked at simply as to the desirability of the Lighthouse Authorities keeping themselves up-to-date by utilising all the information and knowledge gained by the advance of science and engineering improvements.

4179. Here again, I suppose, in connection with any suggested experiments the Trinity House would give its full reasons for desiring to make the experiments?—They do; they all give them.

4180. You would add your observations to theirs, and before such experiments were sanctioned the President of the Board of Trade would have the full case before him?—Yes; for instance, when some of these requests for experiments come before the Board of Trade I may know that something of the same class has been tried by one of the other Lighthouse Authorities, and instead of the Board of Trade sanctioning at once we refer them to the other Lighthouse Authority to see whether they cannot have all the information they require from the other Authority.

4181. The effect of treating such experiments as new works is to bring them to the notice of the Advisory Committee?—Yes; sometimes it may not be a very large expenditure in experiments, but a very large expense subsequently in the works which would have to be carried out, or probably carried out as a result of those experiments.

4182. Do you initiate suggestions, or do you only advise on points submitted to you?—No, I do not initiate suggestions.

4183. You do not regard that as part of your duty?—No.

General Lighthouse Authorities: Efficiency and economy of.

4184. Have you formed any opinion as to the general efficiency of the Lighthouse Authorities as administrative bodies?—As far as my experience has gone, and as regards my duties, I have always found that their suggestions were very practical. Sometimes they may take a wider view of things, and perhaps consider a larger expense necessary than I might think desirable, but bearing in mind that they have to provide the best of everything to ensure the absolute reliability of their lights and works, it necessarily means that a great expense has to be incurred; but I have always found them very reasonable.

4185. When you use the phrase "larger expense than you might have considered desirable," are you referring to new works or to maintenance?—Well, more to new works. I do not know that I should say as far as I have seen, that there has been any great extravagance in their estimates as regards maintenance.

4186. You think they are reasonably economical?—In view of the importance of the maintenance of the lights in the highest state of efficiency.

4187. When you speak of large expenditure on new works you do not mean us to infer that the expenditure on any given new work is greater than it should be?—No.

4188. But that the total expenditure on new works suggested by the Lighthouse Authorities in any one year has sometimes, in your opinion, been larger than it need have been?—No; I think I should qualify that by saying that there are cases where they may have suggested a lighthouse, where I have thought perhaps that a less costly installation might answer the purpose. We have had a case before us quite lately, and I may say that Trinity House bore out the view I had at the time—in fact, we have had two or three cases—and eventually a less expensive installation has been established. But I think they have done it with the best intentions and with the desire of providing the best for the service, and I dare say they would pro-

bably still hold to their view that they thought the original estimate and proposal the most suitable.

4189. Are you of opinion that our coasts are, on the whole, well lighted?—Yes, I think they are. You can fully appreciate that many of these lights were established very many years ago; some of them were established 100 years ago, although I do not say there have not been slight improvements in them; but still, they require from time to time to be brought up to date, and to do that they have to alter the character of lights, and to spend perhaps some thousands of pounds on putting some new type of illuminating apparatus into the towers. This is being done by all the Authorities from time to time; they put in one or two each year in the estimates, so as to gradually keep their lights up to the requirements of the modern development of traffic, and also in connection with the improvements that take place in the type of vessels now navigating at a different rate of speed much closer to the coast.

4190. I take it then to be your opinion that the coast is, on the whole, well lighted, but that there is still room for improvement, and that the Lighthouse Authorities do not show themselves backward in desiring to introduce improvements?—Yes; quite so.

4191. In fact, from what you have already told us, you think that in some instances they are rather too anxious to go ahead and spend money?—Well, it is a fault on the right side, I think, as far as their duties are concerned, because they are kept in check, you see, and therefore it is an advantage to have them desirous to bring themselves up to date. I may mention another point in that connection, and that is, when they adopt improvements which are productive of considerable economy in some of their works, some of their own officials have designed improvements which are certainly economical, like the Trinity House, in the incandescent oil, for instance, where very large economies have been effected by the introduction of this system—I think they are always desirous of doing things economically in that way, to bring in anything that will improve the lights, and at the same time lessen the cost of the works.

4192. (*Mr. Ennis.*) May I ask what length of time have you occupied the position of Adviser on Navigation to the Board of Trade?—Six and a half years now; October, 1900, was the date of my appointment.

Advisory Committee:

4192a. Was the Advisory Committee in existence at that time?—Yes, it had been in existence one year.

4193. Then you are not in a position to compare the condition of affairs existing prior to the appointment of the Advisory Committee with the condition existing afterwards?—No.

4194. Taking the Advisory Committee's work as a whole, you are of course aware that they have no statutory power to enforce any decisions they may arrive at, but still I take it you will agree that their decisions have a very large weight and have been largely acted upon?—They do carry weight, doubtless, and have been acted upon.

4195. You, I take it, will also agree that the lighting of the coasts of the United Kingdom, in view of the maritime superiority of this country over all others, should be at least equally efficient in comparison with the lighting of the coasts of any foreign power?—Oh, certainly.

Tendency of, to consider economy rather than efficiency.

4196. Do you consider, taking the general tendency of the Advisory Committee's operation as a whole, that the tendency is towards a high state of efficiency, or, on the other hand, that they act rather as a brake upon expenditure?—I think that it must be recognised that they do put a great deal of importance on the question of the reduction of expenditure. Naturally they are the body who have to pay the cost, and in some cases, I think, they may be inclined to put that before the question of what may be considered efficient.

4197. Mr. Pelham has handed in a list of lighthouse works objected to by the Advisory Committee, and also a list of works recommended by the Advisory Committee; I presume you are conversant with those returns?—Yes.

4198. And the list of works recommended by the Committee covers about half a page; the list of works objected to covers several pages?—Yes.

4199. And, furthermore, in the list of works recommended by the Committee, I see the improvement of the light on Rathlin; this appears to have been recommended by the Advisory Committee, but when the Commissioners of Irish Lights submitted an estimate of £25,000, the Advisory Committee considered the expenditure too large, and the application was dropped?—Yes, that was so.

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4200. In fact, these works recommended by the Advisory Committee are, taking them as a whole, works of small cost; they do not seem to have recommended any work, the installation of which involved a large capital expenditure?—The expenditure on Mizen Head was one; I do not know whether that is mentioned in the list.

Mizen Head:

4201. Fog-signal £7,500?—Well that was a fairly large sum.

Disagreement as to establishment of light and fog-signal at,

4202. I intended to ask the question later on, but as we are now dealing with Mizen Head, is it true that the Commissioners of Irish Lights—it is stated here they first objected to the fog-signal at Mizen Head—is it true that the attitude taken by the Commissioners of Irish Lights was that, if the fog-signal were erected in the locality, it should be accompanied by a light?—The Irish Lights Commissioners did consider so.

4203. And that light has not been sanctioned?—No.

4204. The Advisory Committee and Trinity House did not approve?—No.

4205. And therefore these bodies, not approving, it would not come before you?—It did come before me; I had the question before me, and I was not in favour of the light there.

4206. Were you in favour of the fog-signal?—I was not greatly in favour of the fog-signal.

4207. When you speak of recommendations sent in by the Lighthouse Authorities being in themselves desirable, but the question of cost having to be looked into, may I ask if there is any written or unwritten law as to the amount of money that should be expended on new works each year by the General Lighthouse Authorities as a whole or by the individual Authorities; I mean, in arriving at your estimate as to whether a desirable expenditure should be incurred this year, or postponed to a future date; have you any fixed sum before you that should not be exceeded in that current year?—I am hardly expected to criticise the amount to be spent; in my advice I very often state that I think a certain work should be carried out if the funds are available, and it is desirable to expend so much money. I do not advise as to the amount of money that should be spent in any given year, or suggest it is being overrun; I can only say, perhaps I may refer to the fact, that very large works are being undertaken in that same year, and that the matter is not urgent and might be deferred, but beyond that I am not asked to advise or to make any reference to the cost of the actual works during any one year to the President.

Nautical Adviser to Board of Trade: Duties of, as regards expenditure.

4208. Are you aware if applications have been made with regard to lighting of the County Down coast, because evidence has been tendered here on that subject, and I should like to hear your views on that, as to whether applications made by local people with regard to insufficient lighting of the coast of County Down were in your opinion based upon reasonable grounds?—There have been applications—well, a number—one application has been received from and a great deal of correspondence has taken place with Mr. S. Lawther; he has written very frequently to the Board of Trade on the subject, but he has been basing his evidence, I think, as to the necessity for the lighting on perhaps erroneous ideas as to the number of wrecks that have taken place on that particular spot. I might refer to that perhaps, if I may.

County Down: Erroneous ideas as to causes of wrecks on coast of,

4209. Pardon me for interrupting you, but may I ask if the wreck charts contained in this abstract were prepared by you?—No, they are prepared by the Marine Department of the Board of Trade. I may add that some year or more ago—I can tell you the exact date; last April, just a year ago—Mr. Lawther asked the Board of Trade for a return of the number of wrecks that had taken place on the coast of the co. Down during the last 10 years, and the Marine Department gave him a list of 179 wrecks that had occurred there; apparently Mr. Lawther was under the impression that all those wrecks might have been due to faulty lighting; that was the original suggestion on his part which necessitated the improvement of the lighting on the coast, but on analysing the number

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of wrecks that have occurred there—these 179 wrecks—I summarised them as follows. I brought a list in case you might ask me a question upon it.

4210. I think it is most interesting?—Of these 179 wrecks, 22 were vessels which dragged or parted their moorings when at anchor or alongside quays; 23 were vessels that were inside Lough Strangford; 43 casualties occurred while vessels were entering or leaving harbour, beating in and out or steaming in and out, and getting on shore; and 27 occurred during daylight and in clear weather. Well, that is 115 out of the 179; of the remainder, a few were due to mishaps to sails or steering gear, and a great number occurred during thick fog or hazy weather, when land and lights were obscured. I am quite prepared to admit that even during the foggy weather some of those vessels may have been out of their reckoning, by not making sufficient allowance for the currents, but as far as the lighting of the coast was concerned, I could not say that but very few of these casualties were due to the want of more lights.

Proportion of wrecks due to insufficient lighting.

4211. But still you think that a small proportion of them might be due to insufficient lighting on the coast?—A small proportion. I may say that I went through the list most carefully with all the returns, and pencilled against them what was the cause of the casualties. Of course, the first question that cropped up was in connection with the lighting of the coast, and from that list of wrecks I found that five, I think, had gone on shore just inside Belfast Lough, at a place called the South Briggs Reef, which has subsequently been lighted by a gas buoy, and I do not think that any casualties have occurred there since. So, of course, there is one case in which the improvement has taken place. There were only, I think, three wrecks out of the whole number that had gone on shore near the entrance to Lough Strangford which might have been averted if a light had been in position. As to the question which, I believe, Mr. Lawther puts great stress on, the insufficient knowledge of the tides—the tidal currents on the coast—that did not arise at the time, because the question had only been on the question of lighting. Since then he has added to his suggestions by saying that it was desirable that, in addition to lights, it was necessary to have better charts, or rather better information on the charts, regarding the tidal information, and he has been informed that that, of course, was a question for the Admiralty; that they had the production of the charts and the issuing of the charts.

Issue of wreck charts of coast advocated.

4212. The Admiralty are the only people who issue official charts?—Yes; we have nothing to do with that. The other question—I daresay it is coming before you—that he has raised with the Board of Trade is that of issuing a wreck chart to all vessels, showing the number of wrecks that have taken place on that coast, as a warning to them to take more care in navigating along the coast in thick weather; but that, again, is not a question for the Board of Trade. They do not issue charts or instruct ships to provide themselves with such a chart, and he has been informed of that accordingly, and at the same time warning him that the chart which he proposes should be issued, showing 179 wrecks, would be hardly a fair one on which to base his statements as to the immense number of wrecks that have occurred which might be considered due to the tidal currents; that was rather his suggestion.

4213. Obviously, I take it that such a chart as suggested would not convey any accurate information, because the number of wrecks on a coast will largely depend on the amount of traffic along the coast?—Yes, but, of course, one does not wish to throw cold water on the attempts of any party to bring before the authorities any suggestions. I may say we welcome any suggestions from outsiders, but one is desirous that it shall be based on some reliable information.

Light and fog-signal advocated for Strangford Lough.

4214. *(Chairman.)* Might I just ask, before you leave this subject of the coast of county Down—you have mentioned lights; you said nothing about fog-signals—do you think that there might be more fog-signals on that coast with advantage?—I do think that there might be an improvement in one position. I am quite in agreement with the idea that there might be some light in the vicinity of the entrance to Lough Strangford, and not only a light, but some fog-signal. I, perhaps, am not prepared to specify quite the class, but, generally speaking, I think that probably a lighted gas buoy, or something of that description, just outside all the dangers, or even a light and fog-signal at Ballyquintin Point might be advantageous. The only wrecks which have taken place on that coast which might have been averted if additional lights had been in position are at that particular part. Many of these wrecks have taken place within a short distance of the South Rock Lightvessel; and there is a very good fog-signal and a very good light there. I should think a very large proportion of these wrecks have taken place within two miles of this lightvessel, and therefore it can hardly be said it is because the coast is insufficiently lighted when the weather has been so thick that they have not been able to see the light. I think also a great many of the casualties are due to the lead not being used. In thick weather advantage has not been taken to see what water they were in, and in many cases they could easily have kept off the coast if they had. Before you turn to another subject, with regard to the lighting of the coast of the county Down, of course, we have referred this correspondence to the Commissioners of Irish Lights, and asked them to consider the matter. It was even spoken of at the last Advisory Committee meeting, and only yesterday we received a reply from the Irish Lights Commissioners that they were considering the whole question and looking into the matter of the additional lights and fog-signals that might be necessary, and I presume we shall have it before us in the next year's estimates.

Fog-signals.

4215. *(Mr. Ennis.)* I intended to put to you questions on the fog-signals at County Down when dealing with other fog-signals; as we have been touching on fog-signals, I will now ask this question: When you consider the range of coast lying between the Tuskar Lighthouse and the Codling Lightvessel—a range of coast nearly 100 miles long—a coast with a chain of sandbanks running along and a number of lightvessels, the Lucifer, Blackwater, North and South Arklow—are you aware that none of these lightvessels I have specified are provided with anything more efficient in the nature of a fog-signal than a fog-gong?—I could not say offhand what the fog-signals at those places were.

Inefficiency of fog-gongs.

4216. The installation on board of all these vessels is a fog-gong, and I take it a fog-gong is with an onshore wind, in that position, practically useless for the purpose of warning vessels?—Of course, one knows one cannot hear them very far. They have not been fitted on any of our lightvessels in recent times.

4217. You would not consider them modern. You have spoken of gradually installing lights of a better type in the towers and keeping up to modern requirements; you instal so many lights each year with a view of gradually bringing the entire system into a highly efficient condition. But science does not stand still; science is making progress, and the question I should like to ask is, is the pace at which we are changing our lighting arrangements sufficient to keep pace with the strides that science is making?—Well, I think that with regard to the coast between the Tuskar and Codling Lightvessel, as far as I am aware, there have been no complaints about these fog-signals. I cannot call to mind, during the six years I have been at the Board of Trade, that there has been any application received at the Board of Trade, or any complaint made that these fog-signals were inefficient. Whether the Lighthouse Authorities have received complaints on that score I do not know, but I should think the probability is that if they had had any pressing complaint, and no notice had been taken of it, that we should have had it at the Board of Trade subsequently.

No complaints of signals from Tuskar to Codling.

4218. Of course, the chain of lights that I speak of would be lights that would more intimately affect coasting trade than the large oversea trade?—Yes.

4219. But still the coasting trade is important?—Well, we do get a great deal of correspondence in connection with the coasting trade.

Submarine bell fog-signals.

4220. Speaking of the question of efficiency, and with regard to the question our Chairman asked as to the lighting of the coasts of the United Kingdom, and your own answer to a prior question of mine, is it not a fact that, especially in experimental work, we are not level with some other countries? With regard to submarine bells, for example, it is stated here, in these works objected to by the Advisory Committee: Submarine signalling £1,000. That was objected to by the Advisory Committee on the ground that it should

not be paid out of the light dues, and Trinity House bowed to the decision of the Advisory Committee and withdrew the proposal?—Yes.

Established in Canada and United States.

4221. Are you aware that for more than two years past submarine bells have not only been experimented with, but have been in actual use on the Canadian and American coasts?—Yes.

4222. I do not know if you have seen a report of Colonel Anderson, dated January, 1905, on the lighting of the Canadian coasts and the St. Lawrence?—No, I have not seen it.

Lightvessel:

4223. But in that report he refers to a modern lightship, such as are installed off Anticosti, I think, and the Lurcher shoal in the Bay of Fundy. He describes these lightvessels as being fitted with the most perfect system of electric lights, occulting very satisfactorily, with submarine bells and with wireless installations. Would not, in your opinion, a lightship of that type be superior to anything that we have on these coasts at the present moment?—With regard to the electric lighting of the lightvessels, I think it better to have oil; I think the oil that we use is more suitable. The electric light is not so useful in penetrating through a fog, and is not the best illuminant nowadays, and is consequently not being adopted. The French are beginning to give them up too in some cases, and I think, where the lights are at a very low altitude, such as they would be in lightvessels—only 36 or 40 feet above the sea—we do not require these intensely powerful lights that you have at higher elevations. When a light is 150 feet above the sea, and can be seen at a considerable distance the very powerful electric or oil lights must be of more importance, but when you have these lights that are only visible 10 or 12 miles at the outside, it is not necessary to have lights of such intensely powerful character, and I think that the latest type of lightvessel's lights now established in England answer the purpose admirably, and are very efficient.

Electric light deprecated for,

Submarine bell fog-signals: Shipping community disagree as to advantages of,

4224. You would agree, I take it, that the experiments with the submarine bell, so far as they have been conducted on this side, go to show the great utility of that invention?—Yes, I do think so, but you must bear in mind that shipmasters are not all in favour of them. I do not know whether you know that the Allan Line have had them fitted, and they are having them taken out again. They go to Canada, and they are taking them out of their vessels. I do not think that I am in a position to state all that took place at the last Advisory Committee meeting, because, as your Chairman knows, it is confidential. I do not know whether the Commission is aware that opinions are very much divided amongst shipowners and shipmasters as to the advisability of establishing the submarine signalling apparatus. There are not a large number of vessels that have yet been fitted, comparatively speaking—taking the enormous traffic there is. No doubt the large liners—where cost is not perhaps taken so much into consideration as in the smaller vessels—that class of vessel would be more quickly furnished with these sound signals, but with regard to the tramp steamers and the smaller class of vessels, I think the probability is that it will be a very long time before they will take it in hand and fit their vessels, and until their vessels are fitted with the apparatus they will not receive the benefit from apparatus or lightvessels. I think the probability is that if they were generally fitted on lightvessels, most of the tramp lines would say that they were not particularly interested in the matter.

Advocated.

4225. Do you not consider that, if efficient submarine signals were provided by the Lighting Authorities on the coast, that Lloyd's, the underwriters, might be trusted to fix their rates for insurance to make it compulsory on these steamers to fix the appliances?—Yes, but I do not wish in any way to say that I do not think the system is a good one. I do think it is a far superior way of signalling, and more reliable than the ordinary sound signals that we have.

4226. Of course, you are aware of the difficulties with regard to areas of silence in the case of sound signals, which seem to be an insurmountable difficulty?—Yes, I have experienced it myself; I have been present at the experiments and have tested it.

4227. I have only one other question to ask, and it is with regard to what you said as to lights. I quite grasp what you say with regard to lights on board lightships at very low elevation, and to lights in a large number of positions, but for a big leading light—for a light such as the Fastnet, say, or a light for ships coming in from the sea—is it not desirable that the light should be seen at as great a distance as possible?—Certainly.

United Kingdom: Efficiency of lighting of coasts of,

4228. And though the electric light does not penetrate a fog, given candle power for candle power, as efficiently as an oil light, is it not a fact that improvements have recently been made by introducing, I think, a red beam into electric light, which enables it to carry further, and that the candle power which can be obtained is so enormously greater than anything which is possible with oil light, that electric lights can be installed which carry further. We have had the evidence of a witness here as to the lights at Ushant and the Lizard being seen at the same time?—I think as regards the majority of lights round our coast, taking the most salient points, such as the Fastnet, the Tuskar, and the Lizard, and these outstanding lights, that the type we have now is amply sufficient for safeguarding navigation, and the power of the light is very great; that the distance they can be seen—even at the farthest range, the light is very powerful in ordinary weather; and the penetrative power in foggy weather is so good that I think it would be better than the electric light. As far as I have studied the subject, I do not think those lights could be improved upon.

Nautical Adviser to Board of Trade: Duties of, with regard to Lighthouse Authorities.

4229. (*Admiral Henderson.*) According to your statement and to Mr. Pelham's evidence, you are the ultimate nautical authority over the lighthouse administration in the United Kingdom in all its branches?—I presume I may be considered so; yes.

4230. Now this authority extends even to engineering, scientific and optical questions?—Well, I suppose it may, in one sense; at the same time, I am not in the position, nor do I pretend to criticise the optical apparatus that is employed, knowing that the Lighthouse Authorities have their expert advisers; that the Trinity House have Lord Rayleigh, who is one of the greatest optical experts in the kingdom; and I presume you quite appreciate I should not criticise anything of his, and say that I disagreed with him.

4231. In the course of your duties, you have even to go into the field of finance?—To a very limited extent, yes.

4232. As it is affected by these questions, I mean?—Yes.

4233. Do you not think that the expert knowledge of the various Lighthouse Authorities is sufficient for their purposes?—Yes, I should think it would be.

4234. Now, have you anything to do with the administrative efficiency of the three Lighthouse Boards?—No.

4235. Who does this at the Board of Trade?—I presume it rests with the Assistant Secretary and the President.

4236. And is this an expert, or is it purely a paper control?—A great deal of it is reasonably expert control, but in some details it must be only limited to agreeing with their propositions. For instance, as I referred to in the matter of maintenance especially, the Board of Trade are not in a position to go into the cost in detail of these small works of maintenance—cost of trifling repairs, for instance, or cost of paint, and all the small details, which must be left to the Lighthouse Authorities.

4237. Is there any expert administrative advice in the Financial Department?—I do not know that I should be able to give an answer to that; I think I should rather prefer it to be put to the Financial Department itself.

General Lighthouse Authorities: Efficiency of,

4238. These Boards have all different systems for carrying on what is identically the same work. Has it occurred to you, or, as far as you know, to anyone at the Board of Trade, to inquire as to which is the best, or to think that some mean of the three would be better?—That seems to me rather an administrative question that I ought not to express an opinion upon.

4239. You have a great deal to do with the Boards; you must have some idea of their executive efficiency?—Yes.

4240. I want to know whether you have formed any idea?—The efficiency of the Lighthouse Authorities seems to me generally exercised to good advantage. I think that though the constitution of the various

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Authorities is very varied, yet in their several ways they arrive at very good conclusions, and they are very well advised, especially you may say in regard to the Scotch Lights, where there are no nautical experts among the Commissioners.

4241. Which in your own mind is the most efficient?—I think it lies between the Trinity House and the Northern Lights Commissioners. The Trinity House carry on their work very admirably, and so do the Northern Lights Commissioners. I do not say the Irish Lights do not, but I think the most efficient would be those two.

4242. I am speaking, of course, in the administrative sense, in the economically efficient sense?—My own opinion would be that I think the Scotch are the most economically efficient in that way.

4243. (*Colonel Herbert.*) Might I put it in this way? Which does Captain Frederick think does their work in the most businesslike manner?—I feel inclined to think that the Scotch do—the Northern Lights Commissioners.

4244. (*Admiral Henderson.*) Take, for instance, the fact that the governing bodies of the Scotch and Irish Boards are unpaid, while that of the Trinity House receives £7,000 a year for doing the same work; is not this an extraordinary anomaly?—Not altogether. The duties that the two Boards do are very different. For instance, in the case of the Trinity House—I only give you my views, because naturally you have had the Trinity House and the Northern Lights Commissioners before you, as to what their duties are—but with the Trinity House the Elder Brethren go out in the tenders, they see that the buoys are in their positions, they check their positions, and they do a great deal of practical work in the field, or afloat I might more properly say, which is not done by the Northern Lights Commissioners. The Northern Lights Commissioners have very many fewer buoys, and they have not got the same checking of banks and soundings, and therefore the captains of their lighthouse tenders do carry out these duties, and are able to do it. But, for instance, with the Trinity House, where they have a great number of banks on the east coast of England, the estuary of the Thames, and various places, the Elder Brethren go afloat; they see the soundings carried on, they check the positions of the banks, the positions of the buoys, and do a great deal of work afloat. They are constantly going afloat.

Difference in duties of,

4245. (*Mr. Ennis.*) Do you know that a committee of the Irish Lights Board has been about a month afloat each year doing similar work?—I do not know how long, but they always spend a certain amount of time afloat visiting the lights; but in the case of the Trinity House they do more than that, you see.

4246. (*Admiral Henderson.*) But is not that a supererogatory duty, the fact of the Elder Brethren of the Trinity House actually fixing the position of a buoy; you cannot rely on the position of a buoy fixed once a year, it must be done continually and constantly, and it must be verified after every gale of wind?—Oh, I think they are constantly going out, the Elder Brethren of the Trinity House.

4247. I do not think that is the evidence we have had, it is only done when they make their annual inspection by the Elder Brethren?—Oh, I do not think that could have been given in evidence, but I should not have agreed with it if I had heard it.

(*Chairman.*) I should not have thought that that was the evidence before us.

(*Admiral Henderson.*) However, we will look it up.

(*Chairman.*) We can get an authoritative statement on this subject from Sir George Vyvyan.

4248. (*Admiral Henderson.*) I would say that in your opinion, of course, to be efficient, inspection of buoys must be constant, so to speak?—Yes.

Nautical Adviser to Board of Trade: Time of, occupied by Lighthouse work.

4249. What staff have you got to assist you in your work?—Practically none, because I am only an adviser, and I simply have the papers submitted to me to minute or report upon.

4250. Is the time of none of your staff taken up in connection with lighthouses?—Of course, there are different clerks who deal with some of the questions, and the papers are referred to me, they come to me through the usual routine—the Board of Trade papers.

4251. May I ask, having regard to the amount of work, whether all your time is taken up in the control that you exercise?—Well, the whole of my time is taken up in the different branches. It would be difficult to say how much is for lighthouse duties. Some years—at different parts of the year—I get more questions than others. When the estimates are not coming on for some time I may go for days without having a question of lights referred to me at all.

General Lighthouse Authorities: Relation of, to Board of Trade.

4252. I want to know if it has occurred to you that the existing system of devolution, by which the Trinity House more and more controls the proposals of the Scotch and Irish Boards, and is itself, as well as these Boards, completely under the control of the Board of Trade, necessarily tends to take responsibility off their shoulders, and must involve much circumlocution and delay?—I do not know that I should say that there has been very much delay. Of course, delay—if you can use the word delay—is when the questions have to come before the Board of Trade, and then, after being considered by them, to go before the Advisory Committee, and then be considered afterwards; a good deal of time is thus taken up. I think that is inseparable from all questions of that description where papers have to be referred from one department to another.

4253. Yes but would it not be much more simple, and probably more efficient, if there were one central administration?—I think if you had a central administration you would require to have someone to go round and inspect locally.

4254. You must have inspectors, of course?—Yes, it might be done more rapidly, I grant it.

4255. And I would remark that though the result of this control may be ultimately efficient, especially as to expenditure for new works, there is no really executive administrative control. Each Board really practically goes its own way?—You see, the Board of Trade never initiates new works; it is left for the Lighthouse Authorities to initiate all new works.

4256. On the ultimate control the Lighthouse Boards cannot spend a £5 note without the sanction of the Board of Trade?—No.

4257. That tendency is to relieve them of responsibility. It must inevitably, in carrying out work, relieve them from responsibility, and the question I am driving at is whether the Board of Trade control, particularly as far as the executive administration is concerned, really is efficient, and whether the result is that each Board goes its own way?—It might be possible from the fact of their considering that a certain amount of control was exercised by the Board of Trade, that they might not be so careful in drawing up their estimates, but I do not know that it necessarily follows that it is the case.

4258. You see that each Board has an entirely different system of management?—Yes.

Advantage of different methods of,

4259. One must be better than the others?—Perhaps it is an advantage that there should be different methods, because they can learn from each other to a certain extent.

4260. I am afraid they do not?—They are not bound to one line only.

Advisory Committee: Value of,

4261. I want to ask you what is your opinion of the value of the Advisory Committee?—I think the Advisory Committee is very useful in discussing the questions of new works from the point of view of the shipowners, so that when works may be proposed by a Lighthouse Authority if they could bring suggestions from their shipmasters that a certain light in another position would be more desirable, or a certain class of lights was necessary, they may be of great advantage to the Board of Trade in coming to a decision, and they may be able to put before the Board of Trade the views of the shipping interest. They may be a very useful body in that respect, an advisory body on the practical lighting of the coasts, because they represent the large shipping centres where they can be in touch with the shipmasters.

Central Lighthouse Authority: Opinion as to advisability of,

4262. Are you of opinion that it would be more satisfactory if they were directly represented on a Governmental body or on a central Governmental body; and I mean also not only that they should be represented, but that the underwriters and the masters should be represented as well?—The difficulty of having so many representatives of different bodies on a board is rather great when it is quite possible for

any central board to obtain the views of all these people without having them represented on the board. For instance, if there were any question of a light in a certain position on the coast, it would be practicable to write the various shipping people and find out from them what their views were, those who are using the lights that is to say, and looking at it from a practical navigational point of view, apart from the financial.

4263. But if the Masters' Associations were represented these views would be condensed and ready?—They would have to get the information, any way.

4264. But they would know it; it would come off their own bats, so to speak?—I was really thinking of it from the point of view as to the advisability of having a number of representatives of such different bodies on a central board. Of course that would imply that you are having a central authority over all the Lighthouse Authorities.

4265. Yes?—And under the present conditions.

4266. No, that does not necessarily follow, because you would have a different system of devolution?—I think that would have a great bearing on the question.

4267. I mean, supposing that you had a central governing body, we will call it, or a central consultative body; a small executive board, and a proper devolution and decentralisation of the system round the coasts, do you not think that would be more efficient for the purpose?—I am not prepared to say it would be more efficient; I think it might, in some ways, be more convenient.

4268. Would you think it would tend to economy?—It might reduce the staff expenses, but I do not know whether it would reduce the cost of the works themselves.

4269. No, that I do not mean; I am speaking of administrative cost. I am not speaking of the cost of new works at all?—I do not know that it would, because at present, as you have said, the Northern Lights Commissioners and the Irish Lights Commissioners are not paid for their services, therefore, in that way you get gratuitous services under the present conditions, and if you had a central department you would have, I presume, paid officials, if they had to give their time to it.

4270. Yes, you would have to have a certain number of paid officials, but you have got them now, nearly all?—Under the different Lighthouse Authorities, you mean; bringing them in and utilising them in that way?

4271. Yes, some form of that sort. Of course, I mean a transformation of the whole existing system?—Yes; I have not really given it sufficient thought to give a reasonable answer.

4272. You have not thought it out?—No, I have not thought it out.

elligs: spection of, Board of ade and nity use.

4273. You have mentioned in your evidence that you visited a locality; where was the locality and when was it?—Last year, in April I went down to the Skelligs, on the south-west coast of Ireland. The Irish Lights Commissioners had proposed a new lighthouse should be built, and I was not quite in favour of the large expenditure of money required, as there was a light in existence there which I thought might be utilised, and the Trinity House agreed with that view. The President requested us to go down as a committee and inspect the place with the Irish Lights Commissioners, which we did; as the result of that inspection we recommended certain improvements which prevented the large expenditure which had been first asked for. I only give that as a case in point.

4274. It is not often that you have had to do it?—No, only once or twice.

thouses: struction

4275. (*Sir Frank Adam.*) You mentioned, in regard to general works under your supervision, the question of construction of buildings in connection with the lighthouses, but you have told us that in all matters of minor detail connected with the cost of works, you usually accept the figures given you by the Lighthouse Authorities, and you do not go into details?—Yes.

4276. But might I ask you in regard to the construction of buildings, which sometimes figure at a very large sum in the estimates, if you include these among the minor works of which you accept the costs put before you by the Lighthouse Authorities, or do you check these in any way?—I practically accept it, but in criticising it one compares with the cost of works or buildings by other authorities, such as the Admiralty, in similar positions, what they pay for their buildings. That is one of the questions that your Chairman said I had not really to give an opinion upon; I simply say that these works are necessary because they must have accommodation for the staff. That is rather the line I take up; they must have the staff at the lighthouses, and the staff requires so much accommodation.

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4277. May I take it, that, so far as you can form an opinion, the construction of those works in different localities has been carried out generally fairly economically?—Well, I think economically as regards the works and future maintenance. For instance, at these outlying and exposed positions the buildings that are erected may seem very expensive, but then it means that those buildings require very little repair subsequently. You have put up a substantial structure which costs very little afterwards in maintenance, and of course that means economy in the end. But as regards the specifications that they issue to the contractors who are asked to tender, I take it that the fact of their calling for tenders at all and taking the lowest tender shows that they have got the cheapest that they could get in the circumstances.

Cost of construction of, not extravagant.

4278. We have had evidence before us of a general nature complaining of the unnecessarily great cost of certain lighthouses and lightships. I wanted to ask you an opinion on one in particular that will exemplify the others, and that is the lighthouse at Beachy Head. It was originally on the cliff, and it was afterwards made a rock lighthouse below the cliff?—Yes.

4279. It was put before us, not with any evidence in detail, but just as a general conclusion arrived at by a nautical authority or the representative of a nautical authority, that that new lighthouse on the rock cost a great deal more than it ought to have cost. Have you any knowledge of that?—No; I should say it was constructed, as far as I can understand, with considerable economy. It was constructed by the Trinity House themselves. They were going to put it out to contract, if I remember rightly, and the lowest tender received was considerably more than the Trinity House had estimated, so they took the work in hand themselves. It was an exceedingly difficult place in which to build it, and they had to send down most of the material from the top of the cliff by an aerial railway; it was carried out with complete success, and I believe that they saved, by constructing it themselves, some thousands of pounds.

4280. (*Chairman.*) That is, as compared with the lowest tender?—Yes.

4281. But I think that the evidence of the witness to whom Sir Frank Adam refers was to the effect that it should have been built on an entirely different plan?—Oh!

4282. (*Sir Frank Adam.*) It was unnecessary cost; he put it in this way, he said it cost £60,000, and a suitable house might have been erected for £20,000?—I do not know that I can give an opinion on that right off.

4283. (*Mr. Ennis.*) I think the opinion was to the effect that the position was not such an exposed one that the building required to be of such enormous strength and so well dovetailed.

(*Admiral Henderson.*) I think what the witness said was that it was constructed just the same as if it was a rock lighthouse, and he did not consider the position there necessitated that—the building of a rock lighthouse actually on the beach.

4284. (*Sir Frank Adam.*) I suppose your opinion would be with regard to such a lighthouse that though not exposed to unusually great storms—they can judge the force of the storm that happens every winter on that coast—yet it ought to be built strongly enough to resist any possible storms that may arise over a long range of years perhaps only once?—Oh, certainly.

4285. (*Chairman.*) The new lighthouse at Beachy Head was determined upon, and sanction given to the design before you became Nautical Adviser to the Board of Trade?—Yes.

4286. (*Colonel Herbert.*) Do you receive all the estimates and plans of these works before they are executed?—No.

Nautical Adviser to Board of Trade: Duties of.

4287. Have you to advise upon them?—I do not see the plans at all.

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4288. That is not one of the points?—No.

4289. (*Sir Frank Adam.*) In answer to one of the Chairman's questions you said that, having given your recommendation to the President of the Board of Trade, and he having all the information before him to come to a decision with regard to a lighthouse or other work, he had to take financial and other grounds into consideration. May I ask you what you had in view in using that expression "other grounds"?—I think my idea was there that "financial" was the question of the cost of that particular class of light; "other grounds" referred to the number of works which should be carried out within that particular financial year.

4290. And whether or not preference should be given to one particular work over another that might not be quite so important?—Yes. Now, for instance, in this next year's estimates there are various items that will probably be struck out because they make too great an expenditure in the one year, and perhaps two or three or them—expensive works—may be deferred to another year.

Advisory Committee: Reason for objection of, to certain New Works.

4291. You have told us that, in your opinion, the Advisory Committee, as at present constituted, is a useful body, and looking at the returns of works that have gone before the Advisory Committee in the last five years in connection with the Scotch coasts—that is suggestions made by the Scotch Lighthouse Authorities—I find that of 24 works objected to by the Advisory Committee 16 were sanctioned by the Board of Trade?—I do not remember the numbers; I take them from you.

4292. Leaving only 8 that were either postponed or refused?—Yes, that would be the case.

4293. Have you got in your recollection why those particular works were objected to, speaking in a general way. We have got evidence before us, but I thought perhaps you might state in a general way your opinion as to why these works were objected to on the whole?—By the Advisory Committee?

4294. Yes, by the Advisory Committee. Was it chiefly on account of the cost, or was it for other expert scientific reasons?—I think their opinion was that some of them were not necessary in the interests of navigation.

4295. Then, in the cases where the Advisory Committee thought they were not necessary, and they were afterwards sanctioned by the Board of Trade, I presume the Board of Trade Authorities had evidence before them that was strong enough to overrule the opinion of the Advisory Committee?—Yes, they were satisfied that the necessity for the lights had been established.

Submarine bell fog-signals: Advocated.

4296. Referring to what you said with regard to the Allan Line having abandoned, or being about to abandon, the use of receivers for submarine bell signals, have you heard or have you received any information as to the Canadian Authorities in places where they have had them in use on their coasts or on the St. Lawrence having given them up?—No, I have not heard anything in that respect. Of course, I quite agree with the usefulness of these signals, and they would be of great assistance to vessels fitted with receivers.

Receivers for, removed from steamers of Allan Line.

4297. (*Chairman.*) Do you know on what ground the Allan Line have given them up?—No, I have not heard any details, but I understood that they thought they did not get sufficient benefit from them, or something to that effect, but I have not got the full details about it.

4298. Have they abandoned the system on those vessels which were already fitted with receivers?—Yes, they were fitted on those vessels.

4299. (*Sir Frank Adam.*) I understand, speaking of tramp steamers generally, you do not think they are likely to go to the cost of providing the apparatus necessary to make use of those signals?—I doubt if they will for some time. If there is a question of the insurance, as a Commissioner put it to me, or a question of the underwriters, of course they will be bound to do it.

4300. If the cost of insurance without apparatus were greater than the cost of establishing the apparatus?—Yes.

General Lighthouse Authorities:

4301. With regard to the constitution of the three Boards, on which you have given us some valuable opinions, and comparing the Scotch and Irish with the Trinity House, you have, of course, this distinct difference, apart from Trinity House Elder Brethren being remunerated, that they are all nautical men, whereas neither the members of the Scotch Board nor the members of the Irish Board are nautical men, or in very few cases?—There are only two on the Irish Board.

Relation of Scottish and Irish Boards to Trinity House.

4302. Well, is there not this to be remembered also in considering the difference: that to the Elder Brethren (that is, Trinity House, who are all nautical men) there at present come for their consideration, before they go on to the Board of Trade, all suggestions in regard to lighthouse work made by the Scotch Board and the Irish Board?—Yes, they all come through the Trinity House to the Board of Trade.

4303. So that, however faulty the system may be at present—I am not asking you whether you think it so or not—yet still, so far as regards the final decision at present in regard to the necessity of certain works, it really rests with a board composed of nautical men?—Yes. It is a great advantage in that way that they are criticised by the Elder Brethren, and very often a considerable amount of correspondence goes on between the different bodies before it is eventually sanctioned by the Trinity House, and it comes before the Board of Trade.

4304. And before your opinion is asked?—Yes; so that in one way, having the Trinity House as the superior authority over the others the matter is more threshed out.

One Central Lighthouse Authority: Opinion as to advisability of,

4305. But, still, I gather from what you said in answer to the question of the other Commissioners, that you do think that improvements could be made in the present system by centralisation; or, I put it in this way, that though you hesitate to say that there could be greater efficiency and greater economy, yet, just as the Advisory Committee as at present constituted is most useful, so extending that and making a central body, composed entirely of representatives of the shipping interests which pay the dues, you might have an authority who would do the work thoroughly well and give greater satisfaction generally as a representative authority?—I think that a central authority of that description would be a very suitable one, but I do not quite gather whether you propose that there would be still the powers or authorities in the different kingdoms apart from the central authority.

4306. No; what I had in view was a central authority, devolving upon the local authorities certain administrative work to do, but the whole control resting in one central authority for the United Kingdom and Ireland?—If you had the one authority in London to supersede the whole of the three Lighthouse Boards, then, of course, you would have the one body, which would have to keep in touch with all the distant places all round the kingdom, whereas at present the various Authorities in their different countries are dealing with the subjects which refer to their own particular locality; they are more in touch—I will not say more—but they are in touch with all the wants of their localities.

4307. Are you acquainted with the American method of managing the lighthouses?—No, I have not studied it.

4308. We believe that there they have a central authority, and divide the coast into sections in charge of a superintendent, with his staff?—Yes, something of that sort.

4309. Do you think anything of that sort, with a central authority in London, would answer if introduced into the United Kingdom?—Offhand I would hardly give a definite opinion, but it does not sound to me as a thing that would be so satisfactory in England. I think you want to consider the coast as a whole in all cases. Take the East Coast of England; you want to consider the whole of the East Coast of England, what lights they want on the coast, and where they are most required. You hardly require a sub-division into districts as regards the construction of new works. Of course, for maintenance and such like, that is already in existence at the Trinity House, with their different districts and superintendents round the coast. Then they do not have to look at the thing as an administrative whole; the superintendent of the district simply has under his charge certain works, which he has to see are kept up in proper order and repair.

4310. But, I suppose, in that case he would have to refer everything, before carrying it out, to the central authority?—All his representations would go to his

own central authority, and then if there was any expenditure, of course, it comes as an estimate before the Board of Trade.

4311. But in this idea which I am suggesting for your consideration, instead of coming to Trinity House, say, it would come to a newly-constituted central authority in the same way?—That could be done as far as that was concerned very easily, I should say.

Submarine bell fog-signal.

4312. (*Admiral Henderson.*) In reference to the questions that Sir Frank Adam has asked you about submarine telegraphy, it follows that any introduction of that system must be gradual, and that the two systems must be maintained until it becomes universal; the present existing system of fog-signals must be maintained?—Oh, yes.

4313. Until it is adopted generally?—Oh, certainly, it must be done.

4314. By very slow degrees?—Oh, yes.

4315. And, of course, that means an increase of expense?—Yes.

Nautical Adviser to Board of Trade: Duties of,

4316. (*Colonel Herbert.*) The questions arising out of lights only form a part, I understand, of the matters that are referred to you at the Board of Trade?—Yes.

4317. Therefore we are not to regard you as an expert at the Board of Trade for the purposes of lights, but merely general naval expert on all matters connected with shipping?—Yes.

4318. Is it a fact that a considerable part of those references which come to you in connection with lights arise from conflicts between the different Lighting Authorities?—I should not say the greater part; there are occasional questions that come before me in that respect.

4319. Cases where, for example, either the Scotch or the Irish Authority has been over-ruled by Trinity House?—Yes.

4320. And appeals to the Board of Trade?—Yes.

Trinity House control over Scotch and Irish Boards:

4321. Do you consider that there is any sound reason for keeping that controlling authority at Trinity House?—Well, I do not know that I should say that there is any sound reason for it, but I think at some times it may be very valuable, as I was saying just now.

Value of,

4322. To get a second opinion?—That you get a discussion between the Authorities, because very often discussion arises as to the class of light. For instance, the Irish Lights or the Northern Lights Commissioners may desire to put up a light of a certain type or character, and the Trinity House raises a question with them as to whether something else would not be better and more efficient, so that perhaps there may be considerable correspondence between them on the subject, and at times the Trinity House's suggestion has been agreed to as being more suitable, and at other times the Trinity House give way, and say that the suggestion of the original authority is the best, so that you have this advantage.

4323. That is, it raises discussion?—That is, it raises discussion.

4324. Do you think discussion is always a satisfactory thing in administration?—Well, I think sometimes it is useful to the Authorities to know that the subject will be discussed properly before they get sanction for it.

4325. But the Board of Trade itself cannot be a controlling authority in these matters. From what you said just now they have not got the expert opinion?—You cannot criticise all these things, there is no doubt about it, from absolutely expert opinion. For instance, as I said before, with regard to cost it was absolutely impossible for me to go into the details of the cost of a structure.

4326. Exactly; therefore the controlling authority is in a sense delegated, or rather has become so by practice, because it has not been regularly delegated?—To a large extent it must be.

4327. (*Chairman.*) Are you speaking of new works now or of maintenance?

4328. (*Colonel Herbert.*) I was speaking generally of all works?—Well, even with regard to repairs of a lightship, the shipwright reports that certain expenditure is required for repairing the vessel, that this, that, and the other has to be done, the value of the timber, and all these little details have to be gone into on which this estimate is based.

4329. (*Chairman.*) But Trinity House would have no control over that part of the duties of the other Lighthouse Authorities?—Oh, no.

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4330. It is entirely confined to new works?—Oh, yes.

4331. (*Colonel Herbert.*) But I understand they might raise objections to the details of new works, and that would involve questions of construction?—No; it is on principles.

4332. Only on the principles?—Only on the principles, not the details.

4333. (*Admiral Henderson.*) I think we have distinct evidence that the Trinity House have stated that they control expenditure, and that the other Boards have to send complete drawings of all new works, and that they are criticised by the Engineer of the Trinity House as to their efficiency.

4334. (*Colonel Herbert.*) That is what I understood?—The Trinity House is the statutory authority.

Nature of,

4335. (*Chairman.*) In practice the control of Trinity House in respect of other Lighthouse Authorities is entirely on the principles and is confined to new works?—Yes, they criticise whether a lightship shall have one, two, three or four flashes, and the fog-signals in the same way. For instance, they may say they do not consider that a siren is desirable, they may consider a foghorn would be more suitable, and so on; but that is not going in for what I call the actual details, that is the principle only.

4336. (*Colonel Herbert.*) Well, it is laid down that it is to be over principle, but as a matter of practice it has come to be a great deal more over the detail; at least, that is my impression.

4337. (*Chairman.*) It is confined to the position and character of the light?—Yes.

4338. Should you not say that?—I should say so; I do not think we criticise the cost.

Board of Trade control over, Lighthouse Authorities:

4339. (*Colonel Herbert.*) I do not think it is very material. I will not press the point, but the point I am on is this, that the Board of Trade cannot be the controlling authority; it has not got any expert opinion?—Are you talking about the maintenance?

Nature of,

4340. It is rather on any questions that may cause a conflict between these different Authorities?—We are the controlling authority as regards the point as to whether a lightship shall be established or not, or whether it shall be of a certain character or not, because it lies with me to advise the Board whether I think it is satisfactory or not.

4341. It has all come upon you?—And then the President has to give his final approval.

4342. Yes, but it must all come upon you; that is placing upon you, who have only this among many other functions, the invidious duty of deciding between these supposed-to-be expert Authorities?

4343. (*Chairman.*) Does not the President decide after having heard all sides of the question?—Oh, yes, certainly.

4344. He would not consider himself in practice bound to follow the advice of the expert Nautical Adviser of the Board?—No, he does not. Only the other day something of that kind occurred where I suggested a light of a certain power would be strong enough. The President thought something more powerful was necessary, and it was sanctioned accordingly.

4345. (*Colonel Herbert.*) He would probably have the opinion of the expert?—You see, it would be the experts of the different Lighthouse Authorities, or even the advice of the Advisory Committee, he would have before him. He hears the whole question thrashed out.

4346. (*Chairman.*) He is in the position of a judge; he hears counsel on all sides?—Yes.

Efficiency o

4347. (*Colonel Herbert.*) Would you say that the Board of Trade is a thoroughly efficient controlling authority in the technical matters that come before it?—I should say that it was sufficiently so.

4348. (*Admiral Henderson.*) Might I interpolate one question here? Has not the President of the Board of Trade—with all due respect to the Chairman—quite enough serious responsibility and serious business to do without bothering himself with the positions of

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optical apparatus and other things connected with lighthouses?—I do not know that I am qualified to state what the duties of the President are.

4349. (*Chairman.*) That is hardly a question to put to Captain Frederick.

4350. (*Colonel Herbert.*) Another part of your references arise from differences between the Lighting Authorities and the recommendations or objections of the Advisory Committee, is not that so?—Yes, at times when there is a difference of opinion.

4351. That is a considerable part, likewise, of your duty?—Yes.

Advisory Committee: Value of,

4352. Then do you consider that that Advisory Committee exercises an important function from an administrative point of view in the management of lights?—I think they have been useful in helping the Board to form an opinion, because they have been able to bring to bear the views of the shipmasters, as I have said just now, but I think that the reason that they have been overruled in certain cases is that perhaps they had not considered the subject in all its bearings. They may think that it is not necessary to expend certain sums on certain works, and object to them, but the evidence from other sources may be sufficient to show that the money will be well expended. For instance, a lighthouse that I have in mind now, they had objected strongly for several years to its being brought up to date. It is a very, very old light, and in a very important position. They said that they thought that it was amply sufficient for the purpose, but it was thought that being in this prominent position, as suggested by another Commissioner, the light should be of the best and most up-to-date character, and it was eventually sanctioned. They objected to it because they thought that in the form it was in it was sufficiently good. It happened to be a lighthouse in a prominent position, with practically 8,000 candle power, which is a very, very small candle power indeed. It is now one of the most powerful modern lights. It was of the old fixed type at one time; now it is a flashing light. I think there are cases in which it is quite reasonable to overrule the views of the Advisory Committee. They give useful advice and suggestions, which have been carried out in certain cases.

4353. Do you consider that the views of the Advisory Committee are unduly coloured by the question of the incidence of light dues?—I think I can most easily reply to that by saying that if the cost of the light dues did not fall upon the shipowner there would not be so many objections on the part of the Advisory Committee to some of the proposals put forward by the Lighthouse Authorities.

Local light's: Consideration of complaints as to,

4354. Well, now, I will ask you with regard to local Lighting Authorities. Do differences arise between the General Lighting Authorities and the local Lighting Authorities which are referred to you—such authorities as the Mersey, and Humber, and so forth? I am not sure whether the Humber is under the Trinity House?—Under the Hull Trinity House; it has just been placed under the Humber Conservancy. Sometimes complaints are made to the Board of Trade as to local lights not being efficient, and the questions are referred to the General Lighthouse Authority of the country to which they belong for their criticisms, and it is generally found that they take the matter in hand, and have the lights put in good order, or some modification and alteration in them which will satisfy the requirements of navigation.

4355. (*Chairman.*) Have the local Lighting Authorities an appeal against any decision of the General Lighting Authorities—an appeal to the Board of Trade?—I do not think they have under the Merchant Shipping Act. At the moment I cannot recall any section.

4356. (*Colonel Herbert.*) I do not quite remember whether it is specifically laid down?—I do not remember it.

Maintenance of,

4357. (*Sir Frank Adam.*) Who pays in that case?—The local Lighting Authority has to maintain its lights. As to the General Lighthouse Authority, of course that is all in the Merchant Shipping Act, but the General Lighthouse Authority has considerable powers in the way of control generally over the local lights and buoys. They can instruct them to establish lights and put down buoys in position.

4358. (*Colonel Herbert.*) You have not had to regulate differences between the local Lighting Authorities and the General Lighthouse Authorities?—No.

4359. Do you think that it would be a sounder system of administration to have all these lights under a General Authority?—The local lights and all?

Possibility of control of, by Central Lighthouse Authority.

4360. The local lights and all. Assuming that a new General Authority were established, whether they should not take over the whole of these duties?—Well, it would seem anomalous not to do so, as the local authorities are arranged. For instance, you have the Mersey under a local authority; you have the Thames under the General Authority; you have many small places under the General Authority; for instance, places like Bideford and Barnstaple. Bristol again is under the local authority, inside the harbour; so that having such an anomalous condition round the coast, if any great change were made in the administrative arrangements of the lights, it would seem reasonable to bring them all into accord under some general system.

4361. I was coming to that point about certain ports. Have you been able to judge as to the feeling of grievance which exists in regard to the different treatment of the various ports—take, for example, the Thames?—No, I do not know that I have heard of grievances. Now, for instance, the Clyde Trustees light their own channels.

4362. But they have to pay?—Then, they get the light dues for it, you see.

4363. (*Sir Frank Adam.*) The local light dues?—Yes, the local light dues; at all these small places they get their local light dues.

4364. (*Colonel Herbert.*) You might create a grievance by removing from them the right to levy these light dues; they might think they would not get their fair share if it were a general fund?—Perhaps some of them might like to remain as they are to look after their own lighting; others, referring to the anomaly round the coast, might ask whether it should not be dealt with generally, so as to make the whole thing consistent.

Notices to Mariners:

4365. You mentioned just now in your evidence a question about information respecting tides, and so forth, and that leads me to the question of the instructions to mariners issued, I think, by the Board of Trade?—Yes, we issue Notices to Mariners, and the Admiralty issue others.

Issue of, by Admiralty and Board of Trade.

4366. The Admiralty issue Notices to Mariners?—Yes.

4367. Now, what is your opinion about this dual issue?—Oh, I think it has always, so far as I know, worked very well. The Admiralty issue theirs on a different system to what we do. Originally they were Notices to Mariners to the men-of-war, that was the original idea for their being issued, but they issue them for the mercantile marine as well, and then all the Admiralty Notices are copied into the Board of Trade Notices; practically one is a duplicate of the other, but they are put in the form that is issued to the mercantile marine, almost like a volume, which goes back for the last few months, and includes all the Notices to Mariners, so that a seaman has the advantage of turning over the Notices to Mariners to see if there is any correction to be made to his charts of any locality if he is suddenly ordered away to another part of the world. The Admiralty keep their charts in the dockyard from which the charts are issued. When they are issued to a ship they are up to date to that particular day. The mercantile mariner purchases his charts at the chart agent's, and they should be up to date, but he may not use them for some time, and he may not keep them corrected—on board a man-of-war they are bound to do so—and if he is suddenly ordered to go to another part, and he has to work by a chart which has not been corrected, perhaps not been looked at for months, he turns up his Notices to Mariners and sees whether in the Notices there is anything affecting that particular chart.

4368. Do you think the Board of Trade ought to exercise more control over the charts that are issued to vessels, and so forth?—I have not fully considered that; I should think it is, more a question for the Marine Department than for myself, the question of the issue of charts and the supply to ships; the equipment of ships.

4369. We have had some questions on the subject; I thought we might have your opinion. Then, with regard to another duty of the Lighting Authorities, namely, the removal of wrecks. Do you have to deal with that in any way?—Well, we do not have very much

Wrecks: Difficulties arising as to removal of,

to do with it. Sometimes cases have happened where a wreck has occurred, and a question arises whether it is for the local authority to remove it.

4370. That is the very point I wish to ask you about?—I had one before me yesterday, so I know the difficulties. In the Merchant Shipping Act there is no obligation, it only states that they may remove wrecks which are within the limits of their jurisdiction or in the approaches thereto. The question of "the approaches thereto" is a crucial point sometimes, because though the wreck may be just in front of a harbour the local authority does not wish to go to the expense of removing it, and they say, as far as they are concerned, it is not in their jurisdiction, and as far as they are concerned they do not propose to remove the wreck, and then it has to be removed either by the General Authority or left where it is. Certain cases have arisen where it has been of importance, and the General Authority has removed the wreck.

4371. Then, there our system at present is faulty?—About the removal of wrecks?

4372. With regard to that function?—Oh, yes, I think there might be some improvement as regards either an obligation on certain parties to remove, or some method. There should be no question that when a wreck occurs, if it is injurious to navigation, that it should be removed as soon as possible.

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4373. In fact, there is nobody directly responsible?—I had a case before me only yesterday afternoon where a wreck has occurred in a river. It is within nobody's jurisdiction, and it is not an obstruction to the approaches to the quays of the nearest place, therefore they are not bound nor do they feel called upon to remove it, and the question is going to be submitted to the Trinity House now as the General Lighthouse Authority. It is right up in a river.

4374. That is one of those cases which may be chucked about from one Department to another for a considerable time?—Oh, yes.

4375. In the meantime nobody touches the wreck?—No, quite so.

Notices to Mariners: Difference between Admiralty and Board of Trade Notices.

4376. (*Admiral Henderson.*) Would you send us over a copy of the Board of Trade Notices to Mariners?—Yes, I will. Another point I might mention about these Notices to Mariners is that in the Board of Trade Notices there is a great deal of information in the opening part of them; there are all sorts of instructions about the influence of oil on water and various matters that do not appear, of course, in the Admiralty notices, but I will send you over a copy.

Captain A. F. Boxer, R.N., called in; and examined.

Captain A. F. Boxer: Appointments held by.

4377. (*Chairman.*) I think you were at one time Inspector of the Irish Lights?—Yes, Sir.

4378. How long did you hold that office?—I was Inspector 24 years. I had been in command of a vessel for two years, then I was Assistant-Inspector for four, and the rest made up 24.

4379. When did you cease to hold office?—In 1892.

4380. You were a captain in the Merchant Service?—No, Sir, captain in the Navy, navigating officer and naval commander in three of Her Majesty's ships. I had returned from China just before I took an appointment under the Irish Lights. I had been in command of a vessel in China for four years, and I returned in 1867 or 1868.

4381. I understand you desire to give evidence on the constitution of the Irish Lights Board?—Yes, Sir, the formation of the Board. First, I want to know am I to speak in case the shipping dues should be done away with, or only as to the reorganisation of a General Lighthouse Board. I can speak of both cases. I have gone into the American and the Canadian system; I have been over there, and I approve very much of the American system of lights.

Irish seamarks: New system of control of, advocated.

4382. The Commission has nothing to do with the question of the light dues, but if you desire, you can say what you think ought to be the constitution of the Lighthouse Authority in the event of the present system of payment being altered. We will not interfere to prevent you giving that evidence if you desire to do so?—Well, Sir, in regard to the constitution, I take from the seventy-five lighthouses that we have now on the coast of Ireland, thirty-four to be under the local counties, of those counties bordering the sea coast, which are eighteen, and that they should have the full management of the lights on their particular coasts. At the same time there should be a practical efficient officer at the head of the Board, with a practical engineer under the control of the Local Government Board of Ireland—this Board should be abolished, so that any changes in the lights or any expenditure in these little harbours should have the approval of a practical officer attached to the Local Government Board. The officer, I should say, should be a naval man or a mercantile man of big experience of the coast of Ireland. I have had a great deal of experience for the last twenty years, I may say, or fifteen, working on the coast of Ireland at these local harbours as well as my own. I have made two inspections of the lighthouse department, one in the winter and one in the summer, in a steam yacht; but in the summer I always went by land, and I always found them, particularly the local harbours, very anxious to have their own management of their local affairs.

4383. You mean to say that there should be no control over the local Lighthouse Authorities by the General Lighthouse Authority?—No, Sir; they should be clear; a different board: but it should be under the Local Government Board of Ireland, with an efficient officer or officers attached.

Captain A. F. Boxer, R.N.

4384. But we have nothing to do with the constitution of local Lighthouse Authorities?—No, Sir.

4385. The inquiry by this Commission is into the administration of the General Lighthouse Authorities; will you please confine yourself to that?—Yes. Well, with regard to the General Lighthouse Authorities, if you take thirty from the number, there would be only about thirty-four or thirty-five for the General Lighthouse Authority; and the harbours of refuge, if they were attached, will be eighteen more to the General Authority. That Board should be a general Board, not a Dublin Board. The Dublin Board is self-appointed, and they sit with closed doors, and they have an inspector.

Irish Lights Board: Reconstitution advocated.

4386. Then your suggestion is that the Irish Lights Board should continue to exist, but should have its constitution altered?—Yes, Sir.

4387. By being made what you call a general Board?—Made a general Board sending members.

4388. How would you propose that the members of the Board should be chosen?—From the principle seaports in Ireland sending members. It was suggested some years ago, and they found great difficulty in getting the members—even from Belfast—to go up to attend, so I should think there will be great difficulties in getting members from these ports to assist in forming this Board. I am of opinion myself that the General Lighthouse Board in Ireland should be constituted by efficient—not self-appointed—practical men.

4389. (*Sir Frank Adam.*) But you do not think you would be able to get them?—From those ports I do not think they would come up; there would be a difficulty in getting them to attend—the expenses and other things, and their time.

4390. (*Chairman.*) But then you propose that the existing constitution of the Board should be altered?—Oh, yes.

4391. That the new Board should be composed of representatives of the Harbour Authorities?—Yes.

4392. And at the same time you tell us that the representatives of the Harbour Authorities would probably not attend?—Yes. Very probably they would not attend; it would be very hard to get them to attend. Then there are so many ports in Ireland which are harbour ports. There are eight of them that come under that. I would not meddle with those ports that are working under their own Acts, namely, Dublin, Belfast, Derry—there are eight of them—I would leave them alone; let them continue on their own work.

4393. Well, then, will you proceed to the second head of your *précis* of evidence, the control, inspection and management of coast lights and buoyage, including beacons and all seamarks?—There should be a

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practical officer instead of a self-nominated man on the Board in the management of this.

4394. You have already told us what you think the General Lighthouse Authority should be; apart from the question of the Lighthouse Authority, do you wish to put any evidence before us on the subject of the control, inspection and management of coast lights and buoyage, including beacons and all seamarks?—Of course, I consider, taking the thirty local harbours

4395. I think we need not trouble with those?—Oh, you would take those out.

4396. I understand that you desired to come here to give evidence before this Commission, and that the paper which I have now before me is a *précis* of the evidence which you wish to give?—Yes.

4397. Well, I ask you what is the evidence which you wish to give on the second head in the *précis*?—I had a chart marked out with everything, but coming over it has been mislaid. I think I have said already all that I have to say on that second head. I do not think I can add any more to what I have said already.

Steam-vessel service: Officers insufficiently qualified.

4398. Then we pass to the third head—"Evidence on the officering and manning of the lighthouse steam tenders, together with their general management and working"?—The officers should be better qualified; they should work up for their different points, and the commanders of those vessels, instead of having home certificates, should be qualified in the service the same as they are in the Trinity House. They work their officers up in the ships, and as they come up to being captains, they can almost take the duty of the inspector. In the Trinity House, I may add, there are always two of them to go in the steamers, but the captains are perfectly capable of fixing the position of buoys and lightships. It is not the case with us. There have been men brought in with home certificates. And the other officers, too, I do not think are qualified enough for a particular service like that of placing marks on the coast and lightships. I have had to do it myself in my time as inspector, but it took a great deal of my time and my office work to have to go out and do this work.

4399. When were you inspector?—I was inspector for twenty years. I had the whole coast of Ireland under me, with one vessel doing it for ten years until we got a second, and I worked it inspecting the coast twice a year. Then at the end the work was so severe, and as my age came on, I found I had to give up on account of health.

4400. Are we to understand you to say that you think that work which you did in your capacity as inspector should be done by the captains of the steam tenders?—They would be qualified for it to relieve the inspector.

4401. And you think at present they are not qualified?—I do not think so; they are only carrying home certificates and other inferior certificates. They should be brought up in the service to fully understand marking and placing the positions of buoys. It is a very important duty to see that a light is properly placed. Then I think the masters of the lightships should undergo an examination. They do not at present.

Lightvessels: System of maintenance extravagant.

4402. That brings us to the next point in your *précis* of evidence. Lightships; have you anything else that you wish to say to us about lightships?—Nothing more. I have just stated about the lightships. I may add that I think bringing in the lightships once every three years involves too much expense; to bring in the lightships so often is a very expensive work, and it entails the expense of keeping a second steamer. Most of my time I did the work with one steamer, but since then they have gone into a system of bringing the ships in more frequently.

4403. You think that a less economical system than prevailed in your time?—A great deal, I think, Sir. I am not giving myself any credit for doing it, but I think we worked much more economically than at the present. There is a very large outlay keeping up a staff.

Stores: Delivery at stations by contractors advocated.

4404. Will you pass on to the next head, "Storing of lighthouses and lightships"—what is meant by storing of lighthouses?—The contracts every year.

4405. Oh, supplying lighthouses and lightships with stores?—With stores. I think some of these things could go straight from the contractors for use; were there specifications sent out and contracts made, many of the stores could go straight instead of going through the Kingstown store, involving a lot of work and expense.

4406. That might be done direct, you think?—That might be done direct.

Irish Lights Board: Co-option of members deprecated.

4406a. (*Colonel Herbert.*) I understand your objection to the present Authority is based on its being an Authority created by co-option?—Yes, Sir.

4407. Entirely?—Entirely. The inspector has not the power or anything. If you are called in to give an opinion as a practical officer, and you give an opinion contrary to their ideas, you are told you may go, and they sit with closed doors, and they can say anything they like against an officer. I think that system of co-option could not be worse than it was for the whole time that I was inspector. With the engineer it was just the same. Mr. William Douglass, the Engineer, who worked with me for a great many years, was quite of the same opinion.

4408. Do you think that the Board exercises its functions well with regard to its selection of officers?—Well, I would rather not answer. I think there is a great deal—the members of the Board selecting and co-opting.

4409. No, the selection of officers to serve under the Board?—Oh, for the officers, no; I think they act very well. A few years ago they did not promote their own officers, but took in outsiders, but latterly they have been promoting their own officers up, which I think is a proper system in a small service like the Irish Light service. The expense has gone up a great deal of late years. If I could speak about the office establishment I would say a very large establishment is kept up on account of the reports and references from Board to committees and committees to Board, and the stores are very expensively kept at Kingstown. There is three times the expense now to what it was in my time. Of course, things have increased, I allow, but still they have increased unnecessarily in keeping up a very large staff, which I think unnecessary. Then there is another thing which I would like to speak about, and that is the rents of their offices; they are paying a very heavy rent in Dublin for the offices for this Board to meet in—upwards of £400 a year. There is vacant ground, the Board of Works ground at Kingstown, which could be got for the mere asking, you may say, and at a very small expense proper lighthouse offices could be put up there, and it is a very suitable place, close to the working of their yard, where they could have their staff and the officers under their control close to the yard, and everything would work much better than having an office in Dublin, and it would be a great saving. There would only be an outlay of a few thousand pounds in building offices on this ground; whilst they are now paying upwards of £400 a year and other expenses keeping up this Dublin office.

Establishment expenses excessive.

Suggestions for reconstitution of,

4410. (*Mr. Ennis.*) So far as I understand your proposal with regard to the reconstituting of the Irish Lights Authority it is this. Under the Local Government Act there is in the maritime counties of Ireland a certain list of fishery piers and harbours scheduled as being under the control of the local authority?—Yes.

4411. Your proposal is that the lighting of these piers and harbours that are scheduled as being under the control of the county councils should be vested in the counties?—Should be vested in the counties.

4412. And that a supervising authority of these fishery harbours should be vested in the Local Government Board for Ireland?—Yes.

4413. And you are assuming that the Local Government Board would obtain the services of a marine superintendent?—Of a marine superintendent—of a harbour engineer, specially attached to the Local Government for that work.

4414. With regard to the more important lights round the coast of Ireland and the lights in these harbours of refuge that you spoke of, your proposal with regard to them is that the existing Irish Lights Board should be reconstituted, and that the power of co-option should cease, and that the Lighthouse Authority should consist of representatives of the various Harbour Authorities in Ireland?—The principal Harbour Authorities.

4415. You have stated that you consider a difficulty

might arise with regard to the attendance of members of these Harbour Boards?—Yes.

4416. But supposing that difficulty could be overcome, do you consider the various Harbour Authorities in Ireland, that is, the harbours created by Act of Parliament, should be represented on this central authority?—Should be represented on this central board.

4417. Now, on the boards of some of the harbours of Ireland, as you are no doubt aware, the Board of Trade nominate representatives?—Yes.

4418. Would you suggest that the Board of Trade should nominate any representatives on the General Lighthouse Authority in Ireland?—If they did it should be a practical chairman, a man that would have to give his whole time to the work.

4419. You consider that representatives of those harbours in Ireland would be fairly representative of the shipowning interest; I mean that a large number of the members of these Harbour Boards are themselves shipowners?—Yes, a fair number. I belong to the Local Marine Board of Ireland, and on that Board there are eight or ten representatives of the marine companies. The Chairman and I find that they take good interest, and work at the Marine Board very satisfactorily. Being all practical men, they understand what they are doing.

4420. As our Chairman has informed you, the question of the incidence of the payment of the light dues does not come within the purview of this Commission, but as matters stand at present do you agree that there are conflicting interests with regard to the lighting of the coast; that is. the shipowners would say, as long as they have to pay the light dues, naturally they wish to see the cost of the lighting as low as possible?—Yes.

4421. Whereas the shipmasters, the men who have life and property in their charge, and underwriters, who have undertaken to guarantee against loss of that life and property, would have different views on it; their desire would be to see the efficiency of the lighting arrangements on the coast as high as possible?—Yes.

4422. And therefore I take it that you would agree that these various interests should be represented on such an authority?—Yes.

4423. There should be a fair representation of these various conflicting interests?—Yes.

4424. A representation of the over-sea trade?—Yes, particularly the over-sea trade, because in the outlying stations they have more interest, a great deal, because two-thirds of the shipping passes our headlight and passes up that coast to Scotland and England.

Removal of offices to Kingston advocated.

4425. Your contention with regard to the offices in Dublin is that by building offices at Kingstown the Commissioners would have their Works Department more closely under their supervision, and would save considerably on their present expenditure?—Yes, save considerably.

4426. You know the coast of Ireland thoroughly well?—Yes.

Mizen Head: Necessity for light and fog-signal,

4427. Might I ask your opinion as to a question that has been debated very closely between the Advisory Committee, the Trinity House, the Irish Lights Board, and the Board of Trade with regard to whether a fog-signal and a lighthouse are or are not necessary or desirable at Mizen Head; what is your opinion on that subject?—My opinion is that they are.

4428. Both?—That they are both necessary.

4429. Both a light and a fog-signal?—A light and a fog-signal. There have been more wrecks in my time at that Head through want of either than any other thing that I know.

4430. Would you approve of the erection of a fog-signal without a light?—No. I would include the light. There is a big space between the Fastnet and Kinsale.

4431. You think the fog-signal should be accompanied by a light?—Yes.

Fog gong: Inefficiency of,

4432. Now, with regard to the stretch of coast between the Tuskar and the Codling. The lightships on that stretch of coast are provided with fog-gongs only?—Yes, they have a danger gun to warn ships standing in to them for the banks.

4433. If they see the ships?—If they see the ships.

4434. But in a thick fog, of course, they do not see them?—No. *Captain A. F. Boxer*, R.N.

4435. Do you consider more efficient fog-signals on the lightships on that stretch of coast would be desirable?—Yes. 19 Mar. 1907.

County Down: Recent improvements of lights.

4436. Now, with regard to the county Down coast, do you consider the county Down coast sufficiently lit?—I always thought we ought to have a lightship off Strangford, in the line between Rockabill and South Rock, so as to prevent vessels standing in there and getting into the big streams of water into Strangford Lough. We have stopped the wrecks since we put this "Skullmartin" ship down. We have stopped a great deal of the Scottish ships coming across, leaving with drunken crews standing across for the night and going on on our coast and getting wrecked.

4437. I have no doubt you agree that the placing of the Barrels Rock lightship on the Wexford coast has had the effect of a great cessation of wrecks along that coast?—Oh, yes, one of the best improvements we had.

Central Lighthouse Authority: Advocated.

4438. Now, just a concluding question. Though you advocate the reconstitution of the Irish Lights Board and the placing on it of elected representatives of the various Harbour Authorities in Ireland, you do not suggest that the Irish Lights Board, as a Board, should cease to exist, and that a central board in London should control the lighting of the whole coast of the United Kingdom?—I think a central board in London, representative, worked on the American style, with a representative in Ireland, would work better.

4439. With a representative in Ireland?—Have their chairman in Ireland a practical man.

4440. Yes, but how do you suggest that the central board in London should be constructed?—Oh, by Elder Brethren of the Trinity House.

4441. But Ireland would have no representation, or, at least, a small representation on that central board?—Oh, yes, they would, but I do not think you would get people to come over and sit on that central board in London. There is the difficulty. That is the difficulty of working; even from the large ports getting representatives to come up to Dublin to sit as a board is a difficulty.

4442. I put it in this way: The Advisory Committee at present advises the Lighthouse Authorities and the Board of Trade as to recommendations for new works which come before them. We have had evidence that with regard to the coast of Scotland out of 24 recommendations, or out of 24 cases, in which they refused to sanction the proposals that were made, the Board of Trade eventually sanctioned 16, thus showing that the outlying districts, the coast of Scotland, which was not in the fairway of very much trade, did not receive very much consideration by the Advisory Committee. Would not a similar danger arise in regard to the coasts of Ireland at the hands of such a body?—Oh, yes, there is no doubt of that. I should look at it all through that the marking of the coasts and the working of the main Lighthouse department should be done by practical officers. That is my opinion right through, and that small local harbours should be worked by the local county bodies on the coasts, but with a practical officer and an engineer attached to the Local Government Board.

4443. An Irish board, elected by the Harbour Authorities of Ireland, and containing representatives of the shipowners, the shipmasters, and the underwriting interests, with a controlling authority, a central authority, either the existing authority of the Trinity House modified or the Board of Trade direct, would, in your opinion, be a good authority for Ireland?—Yes. With regard to local harbours, would the Commission like me to speak about the fisheries while I am here, because I have a great knowledge of the neglect of the local harbours, the piers, and the slips all round Ireland at present. As you know, the Irish character requires a great deal of encouragement. If they lose a boat or they lose their nets they are only disheartened, and it requires a lot of cheering up by practical men to bring them up to their work again.

4444. It is a subject I feel a great interest in myself, and I quite agree with you in regard to it, but I do not think it comes within the purview of our inquiry?—It is a very important thing on the coasts of Ireland, the fishery, I think.

4445. (*Admiral Henderson.*) In what year did you retire from the Service—from the Navy?—In 1868.

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4446. What was your rank before you retired?—I was lieutenant-in-command.

4447. You are now a retired commander?—Yes.

4448. You had been a long time an inspector?—Yes, very long.

Inspection of seamarks by Irish Lights Board: Unnecessary.

4449. Now all the Boards inspect their coasts as well. Does this inspection of the Boards do much good?—No; they take the services of one of the steamers for nearly three months.

4450. Is it your opinion that they could perfectly well trust the inspector?—Perfectly. And they never inspect in the night; they go flying about and seeing how quickly they can go round the coasts.

4451. Do you know if that applies to the other Boards as well?—Not with the Trinity House; they send two members of their own, and they are very particular in the Trinity House. I know that as a fact.

Central Lighthouse Authority: Advocated.

4452. Mr. Ennis was talking to you just now about a new constitution of the Board. Would you believe that if you had a central board in London, with proper executive officers in Ireland, you could carry out the work of the Irish Board as it is at present?—Yes, and at half the expense, I believe.

4453. Would you believe that that would be a better way of doing it than having a Board in Dublin at all?—Yes, to have their proper responsible officers.

4454. With proper executive officers in Ireland?—With proper executive officers in Ireland for working the coast and answerable for it.

4454a. (*Sir Frank Adam.*) When you say at half the expense you mean at half the expense of maintenance?—Of maintenance.

4455. Not for new works or anything of that kind?—No; the new works are out, and lightships and buoys are out of my calculation.

Mr. S. Lawther, D.L., called in; and examined.

Mr. S. Lawther, D.L.

4456. (*Chairman.*) You are an Alderman of Belfast?—Yes; senior member of the Corporation.

4457. Have you devoted much attention to nautical affairs?—All my life.

4458. And especially to the lighting of the coasts?—Yes.

4459. I think you desire to give evidence as to the management of the lighting of the coasts as compared with that of the colonies and of foreign countries?—Yes.

4460. Would you kindly tell us what you have to say upon that subject?—Well, Mr. Chairman, I have put it down in writing and you have a copy.

4461. I have a copy of the *précis* of evidence which you propose to give?—Yes, I took them seriatim, and put them down carefully, and I do not think I could improve on it.

4462. Will you follow the order of the *précis* then, and tell us in what respect you think that the management of the lighting of our coasts falls short of that of our colonies and of foreign countries?—Oh, yes, Sir, very much so.

4463. In what respects?—Oh, the entire administration.

Lighting of Coasts of United Kingdom: Not up to date.

4464. Will you proceed to explain that, please?—In comparing the management of the lighting of our coasts with the progress of the shipping industry, it is very much behind the times. The class of ships, as I clearly point out, is a very different class of ship altogether. Formerly, under the Act by which this Irish Lights Board and these other Boards were constituted, they were small vessels, very small indeed, sailing vessels. Since then there has been no modification, comparatively speaking, of the management of the lights up till now, and the result is serious losses, and enormous losses have taken place from time to time on our coasts, as shown by the map which I have here prepared and which I sent you.

4465. Do you consider that the falling behind which you allege has taken place on the part of our Lighthouse Authorities has any relation to the difference in the size of vessels which now navigate the seas?—Yes. There has been no co-equal progress in the arrangements of the lighting of our coast equal to the increase of the shipping frequenting our harbours, and the types of ships frequenting our harbours, and the class of speed, and all that kind of thing.

4466. You say in your *précis* the management of the lighting of our coast is still carried on by the Irish Lights Board on the same lines as when our trade was done by small sailing vessels of slow speed?—Yes.

4467. Has the mere fact that the vessels have since increased in size and in speed altered the necessities of lighting of the coast?—Yes, very much.

4468. And it is because the Irish Lighthouse Authority has not been sufficiently alive to that change that you say they have fallen behind?—Yes.

4469. Would you make that a little clearer to me?—Well, the meaning of it is this, that the Lights Board in Dublin or the Lights Boards all over the country are co-opted members; they are not practical men. They may be a very high type, and are a very high type, of gentlemen, but they have no local knowledge of shipping matters at all, and they are not in touch with the requirements of the various harbours and the sets of the tides into these harbours, the same as other nations, such as Canada and America and France and other countries are. To manage the lights of a country properly it must be done by experts—men who have made it their life study; men who understand the various kinds of tides and the dangers of the tides setting on the coast.

4470. But I understand you to say that the introduction of large and fast vessels has necessitated alterations in the methods of lighting the coast?—Yes.

4471. What are those alterations?—Well, a different type of lighthouses. For instance, the old type of lighthouses used to be on Maiden Rocks; two old lighthouses have been there for eighty years, and they were only suitable for the class of vessel passing at that period, travelling at a speed of five or six knots. Now the steamers going to America go eighteen, twenty, and twenty-two knots. I agitated and got these lighthouses removed, and now we have a magnificent light on the Maidens, and since that was done we have not had a single wreck. I have a map here showing.

4472. In that case, whatever may have been the case when you began to agitate on the subject, the lighting of that part of the coast has since been brought up to date. Why do these fast vessels require a different kind of light?—They come so quickly on the light, a short light or an inferior light, a ship going eighteen or twenty knots, but it takes small vessels going four or five knots a long time to come up to it.

4473. You mean the light should be seen at a greater distance?—The light should be seen at a greater distance.

County Down: Inefficiency of sea marks.

4474. Are there any other cases round the coast of Ireland where you consider the light is very inferior to what it should be, having regard to the consideration you have just mentioned?—Yes, on the County Down coast, approaching Belfast on the south, very inferior indeed. The St. John's Light is a very old light, which has been up seventy or eighty years. We have been agitating to get that St. John's Light made right, and the Irish Lights Board, I think, have agreed to do so, and I think when that is done it will be a very great improvement.

4475. But it appears to me that on the whole the Irish Lights administration may have moved slowly, but it has in the end done what you desired it should do?—Well, if you knew the difficulty to get them to move. It took me five or six years. I have written about 700 or 1,000, I do not know how many, letters, deputation after deputation to get a light put on Black Head, that is on the northern entrance to Belfast Lough. I could illustrate that better if you would permit me to show you the chart. (*Chart exhibited.*) This is Belfast Lough, that is Larne Lough, there is the Maidens Light, and here is the list of ships that went ashore on the Maidens; there they are all dotted where losses took place. There were two lights there. Very well; we applied to the Irish Lights Board. The Irish Lights Board put us off. We applied to the Trinity House; they put us off. We applied to the Board of Trade, and it took I do not know how many years, five

or six years, and we got deputation after deputation up, and they still fell behind. We applied also to get a light here put on Black Head. There is a number of rocks all along the coast. Well, the Irish Lights Board said: "We do not consider there is a light required on Black Head." I wrote to the Wreck Commissioners, and got a list of all the wrecks, and I have them put on this chart, showing where the wrecks have taken place; and I got up our thirty-three members of Parliament summoned to attend a meeting here to go into this question, and go to the Board of Trade. And a very extraordinary circumstance happened on one night: four steamers went ashore on Black Head on one night.

4476. (*Admiral Henderson.*) In a fog?—In a fog.

4477. Then the light would not have been any good?—If the light had been there those ships would have been saved.

4478. Why?—Because there would have been a fog-signal there. Since that light has been put up no ships have been lost.

4479. Is there a fog-signal there now?—Yes, a magnificent light, and the fog-signal there is a magnificent one also.

Recent improvements of lights.

4480. (*Chairman.*) You say it took six years before you could persuade the Irish Board to put up a light on the Maidens?—There were two lights there on the Maidens. We suggested, and they complied after a great deal of correspondence, that those two lights should be removed and one splendid light put there. Since that new light has been put there there has not been a single loss.

4481. At what date was the new light put there?—That was about three or four years ago.

4482. Do you happen to recollect whether the Irish Lights put you off on the ground that in their opinion a new and improved light on the Maidens was not required, or on the ground that there were other works that were more urgent?—Well, partly both. I think in one case they were not required, and in the other that there were more urgent cases, and that style of thing. When we applied to the Board of Trade on that light here were four steamers ashore in one night. I happened to be up here with members of Parliament, and I called on the Board of Trade and showed them this telegram. Sir Courtenay Boyle, who was then Secretary of the Board of Trade, said: "Well, we will get this thing done," and that was done at once.

4483. Do you remember what year that was?—About three or four years ago—1903, I think.

4484. Sir Courtney Boyle has been dead longer than that; he died, I think, in 1901?—It was perhaps five years ago; but I am speaking from memory.

4485. (*Admiral Henderson.*) When you were advocating the question of these lights at Belfast did you recollect the Irish Lights Board had to consider the whole coast of Ireland, and did you take into consideration the demands of other parts of the coast as well?—No, we did not; we were only dealing with what concerned ourselves usually on that coast. When we got the Wreck Commissioners' returns showing that these wrecks were there as laid down on that chart, it became a very serious thing, and a very dangerous thing to leave.

4486. (*Chairman.*) Do you happen to remember whether the Advisory Committee were in existence? No, I do not think they were.

4487. Then it must have been before 1900?—I cannot charge my memory, but I have the correspondence that deals with that. Now there is only one thing I want to explain. The Maiden lights are now perfect. I passed over there on Saturday night in that gale of wind, and I asked the captain of the steamer how he liked it, and he said no improvement could possibly be made. But there is one defect, one serious defect, and some day there will be a lot of trouble about it, namely, the fog-signal that there is at the entrance of Larne Harbour, it should be out on the Skernaghan Point.

Removal of Larne fog signal to Skernaghan Point advocated.

4488. Is that point within the jurisdiction of the local Harbour Authority?—No, it is outside. The inside here is Larne, and that is the entrance where the light is, outside Larne, one that is further out, you see, in a line with that there (*indicating on chart*). That is where they ought to put the fog-signal, on Skernaghan Point. A very extraordinary circumstance in connection with the Barr Point fog-signal is this, that you might be within a quarter of a mile of it on the land side and not hear it, and six miles on the sea side and hear it quite distinctly.

4489. You do not want to hear it on the land side?—No, but it so happens.

4490. Is not that one of the peculiarities which are frequently found in the case of fog-signals?—Quite so. Outside, when you are coming in that way, you get that point there, that other point, and then that there (*indicating on chart*). This fog-signal does not carry across those two land points, but down along the coast, there it will go down six or seven miles. For instance, there is the "Princess Alexandra"; there is the boat that went in there and was almost ashore, and she could not hear the fog-signal. Had it been there, and the boat coming in there, she would have heard it quite distinctly.

4491. There seems, from the evidence given before us, considerable uncertainty as to the audibility of fog-signals due to the existence of areas of silence?—Quite so; I was perfectly amazed in going down into that lighthouse and going over the Maidens, and going round to see those sunken rocks uncharted—perfectly uncharted. All the rocks there are not laid down on the charts at all. The Irish Lights yacht going down there went out in the month of August in broad daylight in the summertime, taking some oil from Larne Harbour, and she went on a sunken rock and knocked the bottom out of her, and she cost thousands of pounds to repair.

Danger of sunken rocks.

4492. (*Admiral Henderson.*) When was that?—Twelve years ago.

4493. (*Chairman.*) Was the existence of the sunken rock known?—No; uncharted. Mr. Ritchie was then President of the Board of Trade, and when the matter was brought to his attention he said that was an uncharted rock. That is the case of a great many of these rocks, because when these charts were made out they were not marked on them. I do not know how long it is since this chart was published.

4494. (*Admiral Henderson.*) That, of course, is an old chart?—1888. All that we want to make that part of the coast perfect is to put that fog-signal from there to there (*indicating*). Sir Hugh Smiley, who lives there, has a yacht, and his yacht went on the point and had a narrow escape, but she got off.

4495. (*Chairman.*) Have you represented the matter to the Irish Board?—Over and over again to the Board of Trade.

4496. What has their reply been?—The reply has been—I really could not tell you—it has not been looked into. "I have received your letter, and will lay it before the Board." I think that is the usual reply from the Irish Lights Board. That was the usual universal reply.

4497. Then we may take it practically that you have not had any undertaking from them to consider the matter in the future?—No; no undertaking.

4498. They have simply acknowledged receipt of your representations?—Yes; a printed form. Received your letter, which will be laid before the Board. That is all that is wanted there. I spoke to the captain on the bridge the other night going across, and asked him what was wanted, and he said: "Mr. Lawther, what is wanted there, is to put that signal out there, and that will do." I will explain the reason why: Coming along here the mail boat—the only accident that has occurred since that was done, and that Black Head was lighted—Burns Mail steamer from Scotland on the 29th September last went on Muck Island, and he did not hear the Black Head fog-signal. If that signal had been going, that vessel would not have gone on shore. But you see the cause of this is the set of the tide. Coming down here—it is shown on the map I sent you—I think the tide runs there six knots, down here four, and an enormous inrush of water into this lough, and that sets it on here, and in a fog there is a drift or tide. The "Partridge" went ashore there, and as a proof of that the Clyde Shipping Company's steamer—I think it is the "Copeland" came down here, and the captain did a very wise thing, when he got abreast of Black Head—he arrived there at two o'clock in the morning.

Wrecks which have occurred on coast of,

4499. In a fog?—In a very thick fog, and when he

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got abreast of Black Head, he stopped, sounded, and waited till half-past three, and anchored, and the Black Head fog-signal, according to his statement, he could not hear. If it came to an inquiry, he waited there from two till half-past five—he then heard the Black Head fog-signal, and at six fifteen he got his anchor up, and the fog-signal on Black Head steered him right up to Belfast. I had a reply from the Board of Trade, and they sent a copy of the Irish Lights, saying that they had sent down that the case of the Black Head fog-signal was that the indicator only showed that the fog was there at four o'clock, but the Clyde Shipping Company's steamer was there at two, according to the captain's letter, and he remained from two till a quarter to six, so there must have been something wrong with the indicator.

Wrecks which have occurred on coast of,

4500. Either that or he was in one of those zones of silence which affect the fog-signals; according to the lightkeepers' account the fog began at four?—The Irish Lights said that the lighthouse-keeper reported the signal to be at four. The Clyde Shipping Company's captain says: "I did not hear it, although I had anchored right abreast, till half-past five.

4501. There you have a conflict of testimony. It might be possible that the vessel was in one of those zones of silence?—Yes.

4502. (*Sir Frank Adam.*) At that particular time?—Yes, at that particular time.

4503. (*Chairman*). The zones of silence, as we know, alter?—Yes, true, but it is a most marvellous thing. When I was speaking to Mr. Cheyne about this, and speaking of the lighthouse-keeper, I could not believe it, and Cheyne said: "The marvellous thing is that six miles away, with the windows and the door shut, I heard the fog-signal quite plainly," and here is the boat, the "Princess Alexandra," drifting away down there, and this man was here; had he been out there he would not have gone in.

4504. I should say from the evidence laid before us, that you could not be certain, no matter where the fog-signal were placed, that it would be heard in any particular place?—You are quite right, after practical testing, after asking the lighthouse-keeper about these fog-signals: "Are there any other places the same?" "Some places down about Cork and those places," So those fog-signals are very deceptive in certain states of the foggy weather. But here is the trouble in this case, and it is a very serious trouble. Now, here is your chart. The flood-tide comes in from the north, and meets the flood-tide from the south at Dundrum Bay, and if you look I think you will find a photograph of the "Anglia" ashore on Bally Quinton Point. It is on the other chart (*chart exhibited*). This is it. I have dealt with that. There is the Skernaghan Point; there is the Maidens; there is the tide running there four knots. That is the one light. Now, that is as it is at present. There is the tide setting in there, and here are these wrecks. Now these wrecks that I have got, and have sent you, are the Wreck Commissioners' return of 179 wrecks on this County Down coast in ten years prior to 1906.

4505. (*Admiral Henderson.*) Have you analysed these wrecks, and the conditions which caused them?—No; I dealt with them as a public record.

4506. As a whole?—As a whole.

4507. Because you know in dealing with wrecks reported by the Board of Trade, there is only a very small percentage of them which are due to inefficient lighting?—I am aware.

4508. A large proportion of the accidents happen to ships at anchor—which drag on shore, something of that sort of thing. A large percentage are due to collisions, to other causes, or to fogs which have nothing to do with the lights. Do you see what I mean?—I have gone into that carefully with our harbour master. I believe in talking of lights, and that style of thing you must deal with practical men—pilots and sea captains, and people of that kind. Now, this information I got from the Board of Trade, from the Wreck Commissioners. There are 179 wrecks. I handed that over to our harbour master, and the engineer took the list, and he has honestly recorded them. There is Strangford Lough, and he has put them in there; all in that line are the result of what you have explained, small vessels at anchor, and small chains, and that sort of thing, but when you come up here where the "Anglia" went ashore, that is an enormous steamer. She was coming up here, and this explains it. Here is the flood-tide coming up south, running at the speed that it has, and here is the flood-tide coming down north, and the two tides meet here. This man, a comparative stranger, navigating his ship right up, thought in his innocency that chart does not describe anything about it, it does not show it there, and that is one of the reasons why, I say, this is one of the things that is so very much wanted, to have a wreck chart in the chart room of the ships coming into the various harbours. Well, that man was coming up here at four knots, or whatever speed it was, and he then met with the ebb, the flood which became the ebb, and he just landed his ship there just at that point, and that is the cause of the most of these wrecks in that way.

4509. (*Admiral Henderson.*) Where was he coming; up here?—Up here. He was bound to Belfast.

4510. He was a great deal too close in?—Of course he was, but the tide shifted him in.

4511. But he is too close in at any rate for careful navigation?—Are you aware that the tide runs into Strangford Lough at 10 knots?

4512. I am not aware that it does out here in the proper channel, where he ought to have been?—I quite agree with you, and he ought to have put his lead over to ascertain his position, as he should have done, and had a chart showing that the tide separated there. Had he taken soundings, as you see there, he would have kept clear right out here.

4513. (*Chairman.*) All those considerations show that many of these wrecks, perhaps the majority of them, were due to causes quite independent of the lighting and marking of the coast?—Oh, quite so, but all the large ships; there were three large French steamers, I think, went ashore there, of 4,000 or 5,000 tons. The steamer "Anglia" which went ashore there still remains on the beach. The salvage and repairs, if she is saved, will cost fully £20,000; if not saved, her loss will be close on £70,000.

Improvements of seamarks contemplated for,

4514. Is there any change in the lighting and marking of this coast which you have represented as urgently necessary to the Irish Lights Board and which they have refused to carry out?—There is the light at St. John's Point, which was brought before the Irish Lights Board, and they have sent to the Harbour Board the statements which I wrote to the Board of Trade the other day, and advised them. They are going to put a duplicate of the Black Head light, a light of 400,000 candle-power, on St. John's Point. That will be a tremendous boon. They are going to put a lightship, if the Board of Trade and the Trinity House and the Government agree, outside Stangford Bar, right out in the Channel, and they are going to improve the South Rock light, and they are to put supplementary buoys between Donaghadee and the coast.

4515. When those changes are made, do you think the marking of this coast will be satisfactory?—Oh, very satisfactory indeed.

4516. Does it not come to this, that this administrative body, which you say is so very much behind the age, has either put or is prepared to put up all the marks on this part of the coast which you think are required, with the exception of one fog-signal?—This is only the result of this agitation now before the Board of Trade. We could never get a reply from them, we could never get any movement from them until the Advisory Committee and Lord Pirrie made the representation to Mr. Lloyd George, and I think through them they have sent to our Harbour Board, of which I happen to be a member, to say that they will do this, and if they do that, and carry these things out, that coast will be lit.

4517. Has the Advisory Committee made these suggestions?—Yes, I think so.

4518. On its own initiative?—In addition to the other, they have seen Mr. Lloyd George; I believe Lord Pirrie has seen Mr. Lloyd George.

4519. (*Sir Frank Adam.*) Is Lord Pirrie on the Advisory Committee?—He is on the Advisory Committee. What I say is this, that while that is so, that will not prevent the great risk of the in-draught of the tide setting on that coast. What I would suggest to this Royal Commission is that you should recommend that in the chart-room of every ship—my friend here evidently knows something about ships——

Wreck Charts: Issue of, to all vessels advocated.

4520. (*Chairman.*) This is Admiral Henderson.—He evidently knows something about this matter; I can see by his left eye he has a knowledge of that. But if there was a wreck chart in the chart-room of every ship of that point there, and these wrecks all dotted on the chart in the various chart-rooms, I say that is absolutely necessary not only here, but all round our coast, and that is one of the things that I would recommend your Royal Commission to urge upon the Government—to have these wreck charts in every chart room.

4521. (*Sir Frank Adam.*) Of course, that is hardly a matter that falls within our reference, nor would Lighthouse Authorities have any power to compel the ships to carry such charts. Our inquiry is to inquire into the administration of the lighthouses?—I understand that, but I understand power had been given you to make recommendations for the better protection of our coasts.

4522. No, I think that is hardly the nature of our reference. Our reference is to inquire into the administration and constitution of the Lighthouse Authorities?—You understand, then, our views about that. I recommend, whether it is under your jurisdiction or whatever jurisdiction it may be, that for the better safety of life and property vessels should have that wreck chart in the chart-room. Now, there is no class of man—and my friend will understand me—so deserving of encouragement and protection as the little coasting captain that has to run with his 400 tons and his 500 tons of coal from Maryport and from Cardiff. To catch the tides, that poor fellow is on the bridge on a foggy night, and he has a small crew, and he is just working so-and-so, and that is the class of man I sympathise very much with, and if he were compelled to carry and had his chart, showing him just the same as if you were making a motor-car and a 'bus on the road open an arm danger signal to be there, it would be an incalculable boon to the man, and if that had been the case at the Land's End that White Star boat would never have been ashore.

4523. If there had been?—If there had been a wreck chart showing that that was a dangerous point there.

4524. (*Admiral Henderson.*) I do not think it is necessary for an intelligent sailor to have a wreck chart in order to encourage him to keep clear where there is danger at a point. They will not save him in a fog, and, what is more, most of these vessels coming along here have local knowledge—of course, masters of vessels are just the same as individuals in any other profession—they are composed of people who are very efficient and people who are not so efficient. You have to consider the human element, and one great advantage of coasting traders is that, as a rule, they ply on the same routes and have great local experience?—They do; yes.

4525. And that their experience, their local experience, stands them in very great stead?—Familiarity breeds contempt.

4526. Will keep them off?—That is to say, the familiarity of escaping and knowing the tide, and the catching of the tide, and having to make three or four passages a week, and every little corner is cut off. Well now, that is not for the benefit of the saving of life or anything. To my mind that is the solution of it, and I would say there it is. I would show you another point here (*chart exhibited*); there is the Isle of Man. Now, there is a ship coming up here, she catches the Calf of Man light, and if you look at the soundings in there, if a man would sound on a large ship, and if he were compelled to take soundings when he departs—if you are going to Parliament it would be a very simple thing to get this thing done—if you look up here, Belfast, there is 160 or 180 fathoms running in there, and you can fancy the tide running down there all that space, varying from 77 fathoms and 66 fathoms, coming into Belfast Lough 5½ and 6 and 10 fathoms. Look at the depth from 100 there; look at the high wall, the bank of that tide coming down there at 4 or 5 knots, banking up on that, and you will see it is enormous; and that comes down along that coast, and the waters run in here to Belfast Lough, and they run in here and they run into Dundrum Bay. You see that is the case there, the set of the tide there, but if that was marked with the wreck chart along that, and then Dundrum Bay, showing that the tide runs up——

4527. The tides meet?—I could not see it; you are a younger man that I am, and you can see the mark on that there. That should be in red letters, and all the speeds of the tide should be there. That is my view of it.

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4528. I think it is quite a sound suggestion that, generally speaking, it would be an improvement to charts if the tide marks were in red?—I think it would.

4529. (*Chairman.*) I quite accept that, but I think that hardly comes within our reference. You have given us your view as to the lighting of the coast in the neighbourhood of Belfast, and you have told us that your experience of the Irish Lights Board leads you to conclude that the system of administration should be changed?—Should be changed; yes, Sir.

General Lighthouse Authorities: Abolition of, advocated.

4530. What system of administration would you recommend should be set up in place of the present one?—The thing I would recommend would be this, putting it practically, if I were manager of it. I would abolish the Light Boards altogether of Ireland, Scotland, and England, and I would put in their place the most experienced expert you could possibly get; not a politically appointed man, but an examination man; that is, an inspector, a practical man at sea like our friend here, and I would put an engineer in charge of it, and I would divide our coast into sections the same as they have in America, and I would put this man in charge of that coast, and instead of an Advisory Committee I would make the Harbour Boards in the area of those sections the Advisory Committee. I will tell you the reason why. Our Harbour Boards are elected members, principally among the shipping community. We have a harbour master, who generally has a master's certificate. Our man has a first-class master's certificate. He has been in the Cunard line, I think in charge. We pay him a very large salary, and he is in daily touch with every ship that arrives and every ship that departs. He is a master of the pilots; he is in touch with the pilots; he knows if there is any deficiency or what is required in connection with accident or any deficiency. Supposing a ship went ashore now, if there is no inquiry by the Light Authorities as to the cause of a ship going ashore, there is an inquiry as to the negligence of the captain, the incompetency so far as he is concerned, but there is no inquiry as to the negligence or fault of the official in the lighthouse. Now, I hold this is absolutely necessary, whether the loss was a loss by the defect of the master or the defect of the light, or for the want of a change of light, or for an improvement on the lighting of the coast. Now that is one of the things, that an Advisory Committee of the Harbour Authority would cost nothing, because it is on the spot. You get instantaneous relief, and another tremendous boon and advantage would be all the lighthouse keepers in that area would know that every captain could report to the harbour master within an hour or two hours if the light was not kept, or if there was any deficiency in the light at all, or if the lighthouse-keeper had neglected his duty. The lightkeeper would be in touch with them, and it is one reason why, and a strong reason; and the two executive officers, the practical man, the engineer and the inspector, when they would visit this section they would come and hold a conference with a Harbour Authority, and they would go round the coast and see where there was any deficiency, and where any improvement could be made, and in that way you would have economy and you would have efficiency, and I believe if those things were done on our coast, just as the Black Head Light has saved many wrecks there since it went up, so on that County Down coast it would have saved these 179 wrecks, or 75 or 80 per cent. of them.

Harbour Boards: Appointment of, as Advisory Committees advocated.

4531. I gather your view is that the present Boards should be done away with altogether?—Yes.

4532. And in their place there should be a sort of committee of two—one an inspector and the other an engineer—?—Exactly, in sections; so many in sections all over the country or the United Kingdom, the same as in America. That is the American system, I believe.

4533. There would be a navigator and an engineer in charge of each section?—Well, whether you would have an engineer for two or three sections or not, I cannot say. One engineer might do the whole of Ireland you see.

Central Lighthouse Authority: Advocated.

4534. Do you contemplate any central board to control these officers?—No, I would have a board in London; I would manage the lighting of our coast just the same as His Majesty's Government manages the Customs and manages the Post Office. Under the Board of Trade you have a department for looking

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after the railways and everything else of that kind, and I would have a head board in London, dealing with this whole question, and if there was anything local that our local authorities wanted, an improvement, or anything of that kind, they could telegraph at once to the gentleman who would have charge of the district, and ask him to come down. Well, if there was any difference between that officer and the local authority, that would be referred to the Government here.

Central Lighthouse Authority: Advocated.

4535. You mean that if the local authority thought it was desirable that some new light should be set up in their district, they should have the right to ask the two officers in charge, the inspector and the engineer, to see that this light was put up?—Yes.

4536. In the event of a difference between these two authorities that there should be an appeal to a central body?—Appeal to a central body.

4537. Or to a Government Department?—Or to a Government Department.

4538. But from what source would you derive the funds necessary to put up a new light?—As I understand, the income which is now derived from the lights charged for vessels passing your coast is so large that there is a very large sum to the credit of the lights.

4539. But would you allow a local authority and local officers when in agreement to draw upon that fund for the construction of a new light?—I would not allow them to draw a shilling. That would be under the Government Authority if they agreed to it.

4540. That means that, as far as new lights are concerned, there should be a Central Administrative Authority?—There should be a Central Administrative Authority, that is all. I would not allow them to create anything or spend anything themselves, but that they should be subject to the Government Department who had charge of the funds for dealing with it.

4541. Then your plan would be to sweep away the three existing Boards, and substitute a Government Department in their place?—That is the very thing.

4542. And to appoint local officers for different sections all round the coast?—Yes.

4543. And those local officers should be in touch with the local Advisory Committees?—That is it; and if you do that you would then get the best opinion in the country. I know Ireland, east, west, north, and south, and if you took me to Limerick I could not tell you a single thing about the tide; I could not advise you. If I were on the Advisory Committee I would know nothing about it; I would know nothing about Galway, I would know nothing about Limerick. What would be the use of me in comparison with a Cork pilot, a Cork harbour-master, or a Cork captain, going in there?

4544. But the initiative as respects new lights you would assign to the central body?—To the central body.

4545. And, of course, the control of finance?—Yes.

4546. (*Colonel Herbert.*) I understood you to say your objection to the present system is that you consider the individuals constituting the Boards are not competent?—Well, if you pardon me for putting it in that way.

4547. That is putting it in a brutal way, but still——?—Well, I do not think they have had any experience.

4548. They have not had experience?—No.

4549. I do not quite understand your idea with regard to this expert navigator and engineer. Were they to constitute a sort of department of inspection for the whole kingdom, or was this for Ireland only?—Oh, no, England would have her section, Scotland would have her section, and Ireland would have her section, and those three countries would be controlled by the one Department in London.

4550. Have you based your opinion upon what you know of the Irish Board, or have you studied the constitution of the other Boards?—I know nothing of the constitution of the other Boards. I hear the Scotch Board very highly spoken of indeed; that the Scotch Board have carried out the lighting of the Scotch coast in a much more acceptable form to the Scotch people than the Irish Board has, even than the English Board. That is merely hearsay opinion.

4551. Well, that being the case, that would rather modify your recommendation, would it not?—Not the slightest; it should not modify it at all.

4552. If their administration was held to be satisfactory?—No; it is only in comparison that I am speaking.

United States: Coast lighting superior to that of United Kingdom.

4553. You consider they ought to be better?—No comparison at all, because America does it. I was speaking to a captain of a ship that came in from America the other day, and I was asking him about the lighting of our coast, and what we would require, what he would recommend, what changes he would recommend coming up, and I asked him to put his views on paper, and I sent it to the Board of Trade, as I have sent all the letters from the various captains advising the Board of Trade from practical experience. And I asked him this question: "What is your experience of the manner in which the English coast is lighted as compared with the American coast?" "No comparison at all," he said. "The American coast is lit in a far superior way, and the lights are better." I have never seen the lights myself.

4554. (*Chairman.*) That is the first time such an opinion has been expressed before this Commission?—I am merely giving that opinion.

Shipping Community:

4555. (*Colonel Herbert.*) Are you interested in shipping?—I am one of the old 1-64th owners. I did not go into the limited liability company business. I built the largest sailing vessels in the world when iron ships superseded wood, and I built five of them in Harland and Woolf's—they are all out of it now—carrying 4,000 tons. People thought I was ahead of the times, but now steamers are carrying over 30,000 tons.

Representation of, on Lighthouse Authority deprecated.

4556. The reason I asked you was, I wanted to have your opinion as to the representation of the shipping interest?—I am very glad to hear of that. In the days of the old 1-64th shipowner he was brought up on his own capital, traded on his own capital, ran his own risk. The steamship owners of to-day are the Mary Anne steamship companies, with shares partly paid up, and the majority of those companies are managed, not by the old Brocklebank and Ismay type of gentlemen, they are limited company management; and I do not think you would get out of those limited companies men who have been trained from their youth up, and their families and their capital, enough to give you practical knowledge of shipping matters the way that the old 1-64th owners did.

4557. You do not consider you would get any advice that would be worth having?—I do not, because if you take the limited liability companies—the Cunard line and the big companies, the Cunard line and the White Star line—the heads of the departments are so engaged with overwhelmingly powerful business that they would not have time. The Mary Anne companies—the servant-girl ship-chandler companies, having eight or ten steamers and a £5 share—are managed in this way: "You get your stores from me, and I will take shares from you." I do not think that would be the class of men from whom you would get an Advisory Committee to guide you as to the lighting of the coast. Now, that is a majority of the British shipping at the present time.

Wrecks: Causes of, on coast of County Down.

4558. (*Mr. Ennis.*) With regard to your evidence, I think the first point you brought before us was the enormous number of casualties on the County Down coast, totalling 179?—That is the Wreck Commissioners', not mine.

4559. But you obtained that information?—Yes.

4560. You said you had not segregated this total into the different heads under which the casualties occurred. It may be of interest to you to know that we have had a return given to this effect: That of that 179 total casualties, 22 vessels dragged or parted their moorings when at anchor or alongside quays; 23 were vessels inside Lough Strangford; 43 were entering or leaving harbour; 27 occurred during daylight in clear weather; total, 115. Some were due to mishaps to sails or steering gear, while many occurred during thick fog or hazy weather, when land or lights were obscured. That makes the total casualties 179?—Might I answer you now; I bring it to memory. I had a copy of that from my friend Mr. Pelham, of the Board of Trade, and I went into it and analysed it, and out of the 179—I think the harbour-master and I went into that, and we analysed it out—I think there were 63 bonâ fide positive losses, preventable if that wreck chart had been put there.

4561. No; there are 115 which are due to causes

which would not be affected in any way by the question of lighting or fog-signals?—Yes.

4562. But then some were due to mishaps to sails or steering gear, and many occurred during thick fog or foggy weather. That, of course, might be due to the absence of lights or fog-signals, but still the total number would probably not exceed 40 or 50 which these casualties might possibly amount to?—But they were all very large ones. I make them out about 60 that would be preventable. All those were ships and steamers of various sizes up to the "Anglia," of 10,000 tons, D.W., and down to coasters of 500, 1,000, and 1,500 tons. For instance, one of Robertson's boats went ashore the other day right up on the lighthouse.

4563. In any case you have told us that, having obtained this very efficient light on the Maidens and another at Black Head, and having obtained a promise of having something done for you with regard to St. John's light, of which you complain of a want of power there, and having also obtained a promise to have something done for you with lights at the entrance to Strangford Lough and at Bally Quinton Point, that when these promises have been carried into effect, practically your grievances, so far as the County Down coast is concerned, will be all set at rest, except this question of a fog-signal at Skernaghan Point in place of inside the entrance to the harbour?—Yes. If I were the Advisory Committee I would say that the last suggestion from the Lights Board, although it has come after many years—in my experience, 40 years, I think, of steady application—I think it would meet the case; but what is required if you are going to Parliament to change this, I would suggest, would be this wreck chart of the coast in each chart-room; what I would recommend is that compulsory soundings should be taken in fog; that a man should locate himself by sounding at the bottom; that is absolutely necessary.

4564. With regard to this, we have narrowed down your present difficulty to this fog-signal?—Yes.

4565. All the other difficulties have either been swept away or are in process of being swept away?—Yes.

4566. With regard to that fog-signal at this point, I may say, further, are you aware—you have spoken of the Advisory Committee being in favour of helping you largely with your necessities on the coast of the County Down—of a return which we have had put in of lighthouse works objected to by the Advisory Committee and lighthouse works recommended by the Advisory Committee?—Yes.

4567. Well, so far as I can gather from these recommendations of the Advisory Committee, the only point on which the Advisory Committee really took any steps to help you was with regard to the improvement of the light on St. John's Point. They recommended that, but that is the only recommendation that the Advisory Committee appear to have made with regard to your coast?—Yes.

4568. Whilst the total recommendations made by this Advisory Committee are comprised, as you see there, in about half a page, and the works proposed for Ireland, Scotland, and England, which they objected to, cover over three pages. Now with regard to the constitution of the authority, are you aware that this Advisory Committee is composed of shipowners?—Yes, I am.

Black Head Light: Circumstances leading to establishment of,

4569. Now, I want to ask you, do you think that from the time you began your agitation—your very practical and your very effective agitation—for the lighting of your own coast, if the Irish Lights Board had not existed at that time, and you had had to deal with the Advisory Committee only, you would have obtained all that you have got since?—I really do not know. You see, the only thing that I got secured was when my friend Sir Courtenay Boyle was Secretary to the Board of Trade, when the 33 members of Parliament were to meet the next day to go to the Prime Minister about this Black Head light. When I went into Sir Courtenay Boyle with a telegram from the harbourmaster that four steamers were ashore at Black Head, he said, "Give me this thing." I said, "Well, if you telegraph to the Irish Lights Board, and see that the Irish Lights Board will put that light on Black Head, I will not ask these 33 members to meet. I want the light on Black Head, and if you telegraph to the Lights Board in Dublin a telegram that I will write out for you, and that you will send"—I wrote the telegram for my friend Sir Courtenay Boyle to send to the Irish Lights Board in Dublin, and it was this: "Lawther, Belfast, here; 33 members Parliament to meet tomorrow; four steamers ashore at Black Head; will you authorise a light to be put at Black Head at once? If you do, I will induce Lawther to go home, and end this agitation." The result was that next morning, in the Constitutional Club, I got a letter from my friend Sir Courtenay Boyle, "You may go home, and do not bother me any more," and the result of that was that the light was put on Black Head. I do not believe, if those four steamers had not gone ashore, and the idea of the 33 Ulster members meeting, the light would have been there yet.

4570. That may be, but you will admit, I have no doubt, that it is not every Irish gentleman, or Scotch gentleman, or English gentleman, who is agitating for efficient lighting on the coast of the particular locality that he inhabits who is fortunate enough on the very day that he is in the House of Commons to have four steamers go ashore for his special benefit?—I know this much, that if you want a light or improvement on the coast, get four steamers ashore in one night, and I will guarantee that you get what you want.

(*Chairman.*) That is a very interesting illustration of the efficacy of political pressure.

Central Lighthouse Authority: Suggestion for constitution of.

4571. (*Mr. Ennis.*) I want to put it to you this way with regard to the constitution; I do not quite understand the constitution that you propose for this new authority. I do understand thoroughly that you propose to sweep away the Irish Lights Board, the Northern Board, and the Trinity House?—Yes.

4572. You have expressed an opinion that the Scotch Board has done its work extremely efficiently?—I merely say in comparison, that I hear them well spoken of. I know nothing of my own knowledge.

4573. But are you aware that the Trinity House is composed of mariners altogether?—All I can say is——

4574. I mean they are experts?—During the time I was in negotiation about these lights I called at the Trinity House, and I must say I met a gentleman there, when I put these things before him, an expert of experts, and he said the light should be put there, "And if I have anything to do with it it will be there." Now, speaking for the Irish Lights and Trinity House, I never met with anything but courtesy in my dealing with them.

4575. What I put to you is this: You propose to sweep away the three Boards?—Yes.

4576. You say, and we have had evidence of it, that the Scotch Board is a very efficient Board?—Yes.

4577. The constitution of the three Boards is this: Trinity House is a paid Board, and paid well for their services?—Yes.

4578. And it consists of practical men, who co-opt each other to the position?—Yes.

4579. Has the Irish Board got men who are not practical men?—Yes.

4580. The Scotch Board consists practically of lawyers?—I would have nothing to do with them; I would not touch a lawyer with a 40-foot pole so far as lights are concerned.

4581. You are aware what the constitution of the Irish Board is?—I know all about it. I know the Lord Mayor of Dublin is a member. My friend the Lord Mayor at the time was a very decent fellow, and he was very civil.

4582. We have had evidence as to the constitution of the Board, but what I want to put to you is that you propose to create an authority in lieu of all these Lights Boards?—Yes.

4583. As far as I understand your plan, it is that this Advisory Committee of Shipowners, which at present advises the Board of Trade should remain in office?—Not at all; I would wipe them out, too.

4584. The whole lot of them?—The whole lot of them.

4585. You would have an engineer and a navigator practically in charge of all Ireland?—Of all Ireland.

4586. And they would be controlled by whom?—They would be controlled by the Government, a Department of the Government. You want to know how I would deal with it? I would say you would put the Board of Trade—the Board of Trade runs the railways, and they run many other things; they would have an establishment, whether they would take Trinity House over or not.

4587. I would call your attention to this fact. You say the Board of Trade run the railways, but you do not mean to convey to us that the railways are

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managed by an engineer without any director, without any intermediate authority between the engineer and the Board of Trade?—I mean to say that the Scotch, English, and Irish Lights should be managed the same as His Majesty's Customs are managed, by practical men. They charge light dues on ships passing their lights, and the Customs charge dues on wine, whisky, and that, and they have an officer to collect that, and the Customs collect light dues on ships coming in, the officers in charge of the Customs. The Post Office is a most complicated thing, and yet it is one of the most perfectly-managed things in the three kingdoms. Well, if the Post Office is so well-managed by experts, would it not be a very simple thing for the same class of experts to manage the lighting for England, Ireland, and Scotland, the same as America, France, and all up-to-date nations do.

Central Lighthouse Authority: Suggestion for constitution of,

4588. Yes, but I want to get from you the constitution of the authority that is to manage all this work because it goes without saying that a Minister obtaining his office by virtue of the political party to which he belongs being in power at the time, and not being an expert himself in the matter of lighting or anything of that kind, must depend upon experts. There must be a controlling power vested in the Government. There is a controlling power at the present moment vested in the Board of Trade. I suppose you are aware that at present, if the Irish Lights Board or the Northern Lights of Scotland wishes to carry out anything in the nature of new works, they must first of all obtain the sanction of the Trinity House? Though they are not nautical experts themselves, they must obtain the sanction of the nautical experts of the Trinity House, and, having obtained that sanction, they must further obtain the sanction of the Board of Trade?—I am aware of that.

4589. So that the Board of Trade exercises a control at present?—Of course, yes.

4590. You propose to extend that control of the Board of Trade from what I may call a control by veto to an administration of the entire work?—Of the entire work.

4591. Do you think that the Board of Trade has not sufficient onerous duties to perform at present without undertaking one like that?—I was in at the Board of Trade to-day seeing Mr. Pelham, and I think they will require very shortly new buildings. I think it is a very dilapidated old show, and I think they will need new offices very shortly.

4592. (*Chairman.*) I think perhaps it is desirable I should correct you on one point. You spoke of the Board of Trade running the railways. The Board of Trade has, as matter of fact, much less control over the railways than it has over the Lighting Authorities?—It may be, but to a certain extent they have the Railway Commission, and all that.

4593. The Railway Commission is quite independent of the Board of Trade?—I know; but the Board of Trade has a great many things on hand. But what I mean is, you may not put it under the Board of Trade; have a Lighting Department, have it a new Department altogether if you like outside the Board of Trade, but let it be a Government Department.

4594. (*Mr. Ennis.*) What I want to arrive at is this: I want to know in your suggested control of the lighting of the coasts of the kingdom how Ireland will have a representation which can make itself heard with regard to lighting on the Irish coasts which may be locally felt to be necessary, and which a central authority might not view possibly with favour. I have heard you say with interest, and I thoroughly agree with your view, that the little coasting man, the man carrying his 300 tons of coal, is a man who deserves to be sympathised with. And I think you will agree with this view—that in considering the question of lighting the coasts of the kingdom you have a variety of interests, and those interests are in many respects conflicting interests. You have the interests of the oversea trade, the big oversea trade. Their requirements would be met by some big leading light such as the Fastnet, the Tuskar, and a few lights like that. They do not want lights on remote parts of the coasts, and so far as their voice or their interest goes they have no incentive to expend money upon lighting a portion of the coast which does not directly affect their own trades, does not affect the great maritime waterways. I think that is instanced by the fact——?—Would you like me to reply to that.

4595. One moment; I just want to put this point a little further. In these works which are objected to by the Advisory Committee, which is a body of shipowners, there are no less than 24 works on the coast of Scotland objected to by the Advisory Committee, and yet the Board of Trade overruled the Advisory Committee in 16 of these instances, and granted the requests of the Northern Lights Commissioners. But if the Northern Lights Commissioners were not there to put forward the requests for these works in the north of Scotland, and if it rested in the hands of some central body, would these works ever have been passed?—Do you wish me to reply.

United Kingdom: Importance of lighting of coast of,

4596. Yes?—The lighting of the coast is a national question; it is not for the little coaster or for the man-of-war, it is for the nation to have our coasts properly lit. It is not for the newspaper penny postage whether you post your letter on one side of the street to go to the other side of the street or to go to Australia; distance is nothing; it is the system. In the management of the national thing it is absolutely necessary that it should be perfect; there should be nobody in it. What is for the greatest good for the greatest number is the absolute requirement of the lighting of our coast; to be up to date with other nations. This is a national question altogether. Do not let one person have this, or one shipowner have that, and do not let us have an election for that. Let us have a tradesman, let us have a man at the head of the management of the lighting of our coasts such as the gentleman that I saw at Trinity House, an Admiral of the highest type, a perfect gentleman. The moment he saw the coast he said, "That is right; that light should be there." That is the man that I want; he is not dependent upon his election; he is not depending upon votes. Now of all the things that my experience of 50 years of public life has taught me to set myself against, it is, "Can I get you a situation? If you vote for me I will do that sort of thing." I want this a national question the same as you build your Navy, the same as you build your Post Office, and the same as you build your Army.

4597. Yes, but in this case we must take facts as they exist; the theory and the practice, so far as I know it, is that the Post Office must give an efficient service to every part of the kingdom?—Yes.

4598. And that efficient service is given to every part of the kingdom?—Yes.

4599. Even to the most remote districts?—So should the lighting of our coast be for the lighter or for the "Dreadnought." The "Dreadnought" ought to be warned just the same as the man-of-war that went ashore in the Bristol Channel. If he had had that wreck chart, that man-of-war would not have been there. If you had had my friend at the Trinity House at the head of that Department, away from political power altogether, and put him at the head of a competent staff of clerks and secretaries and everything of that kind, you have a Lord Roberts or you have a Lord Kitchener or somebody or other at the head of affairs who knows.

Central Lighthouse Authority: Advocated.

4600. (*Chairman.*) Is that consistent with what you have previously said, Alderman Lawther, about making a Government Department responsible?—Put that man at the head of the Government Department; that is the man to put at the head of it; have a Government Department.

4601. Then it would be a Government Department which was not amenable to Parliamentary control?—It would be amenable to Parliamentary control—of course it would.

4602. If you put it under Parliamentary control, then political pressure may be brought, which seems to me to be the very thing that you dread, though you seem to have applied it yourself in one instance with signal success?—Exactly the same as the Post Office. I am not in the House, but I know there is a great deal of work goes on; but I know this much—that if you put a Department subject to the Prime Minister I would not have them going out of office. I would have this man a permanent official; he would be selected from a competitive examination for his qualities, and if he did not do what was right, out he would go.

4603. (*Mr. Ennis.*) Your contention is—and there is a great deal to be said for it, no doubt—the entire coast, the whole coast of Ireland, not alone the coast of the County Down, should be efficiently lit, and the

whole coast of the United Kingdom should be efficiently lit?—Exactly.

4604. And that these coasts should not be inferior to any foreign seaboard in their lighting?—Hear, hear; that is it.

4605. That is your contention, and I sympathise with it, but we must take matters as they stand, and we must take into consideration the fact, although we have not to report upon it, that the shipowning community at present pay the light dues?—The foreigner pays the light dues.

4606. The shipping community foreign and English?—They all pay.

4607. And so long as they pay the light dues they will object to any very large expenditure upon the lighthouse service of the coast of the kingdom. And, furthermore, we all know that when the Advisory Committee and the Lighthouse Authorities consider new works that are proposed, an element that enters largely into the consideration of the question—and you have had experience of this yourself, forcible experience of it—is not a claim that the work is not in itself a desirable work, or a work that ought to be carried out, but a claim that there should be only a limited amount of money per annum expended on the entire service, and that that claim may possibly be obliged to wait until some other claim is carried into effect. That is the present position?—Now I am going to explain that, and explain it, I think, to your satisfaction. I am Chairman of the Lunatic Asylum. Fifteen years ago there were 300 inmates in it; to-day there are 1,300. The committee of that period advertised for land, and they put it up, and the result of it was that any fellow that had land and had any influence came to the committee and said, "Will you vote for this land, So-and So?" It so happened that there was a large estate five miles out of Belfast of about 400 acres, and need I tell you that I took a very great interest in the thing? Instead of bringing a local committee on to the scene, I said bring the active men down from Dublin. My friend Mr. Balfour will understand—the Lunacy Commissioners. They brought them down to Belfast, they went over this estate, and when they saw it they said, "Buy this at any price, it is the finest in the kingdom," and the result of it was that I got my opportunity, and I said, "Well, this is what I have recommended you to do. No patchwork; get rid of all this patching at any cost with a new state of things; go in for the German system, go in for the Colony system, go in for the classification of your patients; build a villa to hold 50 the same as the Germans do; it will cost no more to feed 40 or 50 or attend 40 or 50." And what is the effect? Our asylum is now being put up on that 400 acres of land, and they are putting it up at £90 a bed, I think, whereas formerly, when the whole asylum was one great big barrack and in one big room yelling and shouting, it cost them £200 a bed.

4608. As you have introduced that to illustrate your meaning, I just want to put this question to you to illustrate mine. You have given us a very interesting statement about this asylum and the Government officials coming down and buying this land, but your suggestion would practically amount to a suggestion that you yourself, as Chairman of the Asylums Board, and the members of the Asylums Committee, should go out of office altogether, and it should be managed from Dublin without your assistance at all?—Dealing with lunatics is one thing, and the lighting of our coasts is quite a different matter. All the same, I am against patchwork in either case.

Harbour Boards: Appointment of, as Advisory Committees advocated.

4609. I should like to know what exact function it is—you made a suggestion with regard to the Irish Harbour Boards—that you propose they should fulfil?—Well, the exact function that the harbour masters should fulfil would be the same as the Advisory Committee at the present time. The executive men that would have the management of the section of the coast, in case there would be anything wrong or anything right wanted, would come and confer with the Harbour Authorities, the nearest Harbour Authority, who would be practically acquainted and know all about it. If the executive officer and the Harbour Authority agreed, then the agreement would go before the Government Authority, and then if you have that, it would rest with the Government whether they carried that thing out or not. If they disagreed, then the Government Authority would say who was right and who was wrong, whether it should or should not be done. What I was going to say was this: I believe the economy, the saving from the three Boards being put into one, would be just like one man living in a house at £200 a year and three men living in a house at £1,000 a year. You would save in the administration of the carrying out of your programme, to my mind, a very large sum of money indeed.

4610. Are you aware that the Irish Board and the Scotch Board are unpaid Boards?—I am aware of that—perfectly aware of that.

Central Lighthouse Authority: Would be economical.

4611. They cost nothing; their services are gratuitous?—I am perfectly aware of that; but they have yachts, my friend, and they have journeys in those yachts. They went out to put a barrel of oil on the Maidens; that cost them £10,000; and they have uniforms and that kind of thing. All that type of thing should be done away with.

4612. (*Chairman.*) Have you got any figures as to the cost of what you call these yachting exploits?—No, the Irish Lights Board are, so far as they are concerned, perfect gentlemen, but you have a staff, the office staff there is £4,800 according to their own showing.

4613. (*Mr. Ennis.*) Which staff?—That is the clerks' staff.

4614. Do you mean to convey if you had a Central Authority managing the lighthouses in Ireland that you would do without a staff?—Oh, no, certainly not; you would have an executive staff.

4615. What I mean by my question is: Would not the officials, the paid officials, that are at present in existence, or other people in their place, be needed in any case to carry on the work?—That I could not tell; that would be a matter for the working of it out under the altered circumstances.

4616. If they were not needed economy might be effected, but if they are necessary there would be absolutely no economy, because the Board which you propose to do away with is not paid?—Take it this way: That you have a Secretary in Dublin, you have a Secretary to the Northern Lights Commissioners, you have a Secretary to the Trinity House—three secretaries. One secretary would be enough, would it not?

4617. I want to get that as your opinion, that one secretary would be sufficient; that you do not need any representative of the Central Authority in Ireland or Scotland?—Not at all.

4618. That the Central Authority in London would be quite sufficient to control both Scotland and Ireland?—The whole thing.

4619. Without any secretaries in Ireland or Scotland?—The same as I understand it in America; they have no secretaries all over the country, as I understood. It would be for the Royal Commission to find that out; you could find that out.

4620. But, then, practically your view is—as I understand your view—that you are opposed to the present composition of all three Lighthouse Authorities, because two of them are practically co-opted, self-elected, but you are also opposed to public election, to elected representatives of the shipowner, who in this case pays the dues, and in the case of local lights, a certain class of local lights, of course, local authorities have to contribute towards them?—Our Harbour Authorities deal with the local lights, our harbour matters, and the Chairman deals with that.

4621. Are you aware that the lighting of the Port of London, contrary to the custom prevailing in most harbours in the kingdom, is borne by the General Lighthouse Fund?—That I am not aware of. I do not know anything outside Irish affairs. I know nothing about the London system or Trinity House.

4622. Do you suggest that this Central Authority that you propose to bring into existence would deal with the area administered by the present Lighthouse Authorities, or an extended area?—I would. The authority I would suggest would be an authority to deal with the lighting of the coasts of the kingdom.

4623. And therefore your proposal practically amounts to this, that the entire lighting of the coasts of the kingdom should be absolutely controlled by the Government, and by officials appointed by the Government?—Yes.

4623a. That there should be no power of appointment vested in the payers of the dues, or in any other body in this country?—As long as they charge lights, that is a question that becomes a national question, but the

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less you say about it, if it is not within your jurisdiction, the better.

4624. (*Chairman.*) We have nothing to do with the question of light dues?—No, you have nothing to do with that, but the strong point is the safety of the coast and the navigators on the coast, and bringing it down to the simple practice, the wreck charts, and the navigators should use the lead; and another thing which is not mentioned, that these lighthouses outside should be connected by telephone.

Telephonic Communication: Advocated, between light-stations and Harbour Authorities.

4625. (*Mr. Ennis.*) You are aware that some of them are at present?—I think it should be universal. I will explain to you the reason why. Take Belfast, take the Black Head Light—ships coming from the north—these ought to be connected by telephone, because in a fog the small vessels come in, and they are sometimes two or three hours late, for the sake of the poor men who are waiting to discharge them.

4626. (*Admiral Henderson.*) Is not that a local affair?—I do not think so; the local people could not get that. It is a compound thing; it would be for the benefit of the working men.

4627. (*Sir Frank Adam.*) What do you mean by "compound"?—Well, the men who would get most benefit would be working men.

4628. Who were the authorities that opposed the composition?—The nation would be.

4629. But in the present case of communication by telephone?—Two things.

4630. On the one hand you have got what?—I would say the ratepayers should have the authority to connect every light with the Harbour Authority.

4631. You have instanced a special case here, I understand?—Yes.

4632. What are the two authorities that ought to join together to be connected by telephone?—I should say the Harbour Authority and the Lighthouse Authority should be connected by telephone, because the ships from the Bristol Channel and from English ports are prevented during foggy weather from coming in until they are sometimes four or five hours late. When these ships come up to the quay with general cargoes or coal cargoes, these poor unfortunate men who are waiting to discharge them in wet weather and cold weather are standing hanging about there from 8 o'clock in the morning till 2 or 3 in the afternoon.

4633. (*Mr. Ennis.*) No doubt it would be very desirable to give every facility that could be given to people in matters of that kind, but do you not realise that if you impose extra duties on the Lighting Authority, the Lighting Authority would require a larger staff, and that would mean much greater cost?—No.

4634. For instance, in fog, light keepers must be attending to their fog-signals?—Yes; you take the lighthouse at Black Head or St. John's Point, or anything of that kind, and have it connected by telephone on the general telephone; the harbour-master would ring the man up at Black Head Light, and the man at Black Head Light would say such and such a boat has passed up. There would be only 24 in the day; there are only 24 ships come in in the day, 12 north and 12 south. It would be a very small, not a very big operation; it would only be the cost of putting the wires down and making the connection. That would be through the Government Post Office or through the other.

Irish Light Board: Representation of localities on, disapproved.

4635. I just want to ask you one more question. In the event of your favourite scheme—that is, the sweeping away of all existing Lighthouse Authorities and substituting a Government Department and nothing else—in the event of that not being carried into effect, I want to ask whether you would prefer the Irish Lights Board to exist on the lines that it at present exists on, or to be replaced by a Board consisting of elected representatives from the various harbours of Ireland which possess statutory harbour powers?—Well, I have not studied that out, but I would not approve of either the one or the other, and I will tell you the reason why. Supposing I were taken from Belfast to be a member of that Board, I would only know the requirements of Belfast; I would know nothing about Galway, Sligo, Limerick and Londonderry—nothing of that kind. That is one of the strong arguments. I would go up, and I would be asked to give an opinion on a thing I knew nothing about.

4636. Supposing a claim came from an outside source for some lighting on a stretch of the coast which you were fully conversant with and able to give as effective an opinion upon as you have given to-day with regard to your own coast, would you not be a tower of strength to your Board?—No. If you sent forward representatives of the various Harbour Boards to Dublin to manage the lighting of the Irish coast by an elected body from the various Harbour Boards, I do not think it would be an improvement on the present system.

4637. The present system, as you are aware, is a system whereby a body of Dublin gentlemen representing one port only in the kingdom manage the entire coast?—Well, I would say from my knowledge of human nature you would be safer in the present to leave it in the hands of officers. In the other case every fellow would run it for himself. If you sent a representative up from Galway, Sligo, Limerick, Derry to manage the lighting of the coast every fellow would be wanting something or other of the kind, whereas in the Irish Lights Board, as at present composed, you have a better jury to go upon than an interested jury.

4638. (*Sir Frank Adam.*) You evidently have no faith in work by representative government?—Of a certain class; and I think you and I would be at one on that point if we were to compare notes.

4639. (*Mr. Ennis.*) Well, I gather, then, that you would not favour an elective principle, but at the same time you hold that the coasts of Ireland ought to be efficiently lit?—I do, strongly.

4640. And do you think if it had not been for the exertions of yourself and your colleagues in Belfast that you would have succeeded in getting your coast as efficiently lit as you have?—I do not; I think they would have been in the same state. But if you put the executive system on, I speak of, and send down my friend from the Trinity Board, he is a tradesman who knows just exactly what he is talking about, and whether you want a light or not, there it is; you have no trouble. My experience in life leads me to the opinion that you ought to go to a shipbuilder who knows his work, go to a tradesman who knows his work; you have no trouble with him whatever.

4641. Are you a believer in the view that experts of high general knowledge are more competent to express valuable opinions on local circumstances than people who know the locality thoroughly all their lives and who may not be so thoroughly qualified from the expert point of view. I put it in this way: an engineer comes down to a section of the coast where a fishery pier is required, say; would you place absolute confidence in the opinion of that expert if you found that it was in direct contradiction to the opinions of experienced fishermen who had lived in the locality all their lives and who knew the set of the tides and all the local circumstances?—I would rather have the man who went out on a dirty night with his oilskins on than all your experts in existence; I would rather have a man who, coming in, knows the sets of the tide and the narrow escapes he has had.

4642. Does not that tell against your own argument that representatives of different parts of Ireland such as Galway do not know what is better for Galway Bay?—The principle I go on is that you would get home rule on the point and you would get it on the spot. The Commissioners of the Derry Harbour Board would deal with the home rule question and the ships going to Derry, and would have it there, and every one of them would know, and dare not express a wrong opinion, because it would be *ultra vires* to the expert.

Harbour Boards: Appointment of, as Advisory Committees advocated.

4643. But you do not propose to give him any power?—Oh, yes, pardon me.

4644. What is the power you propose to give him?—He is the adviser with the sectional navigator and the sectional engineer; he goes down and confers with them on the spot.

4645. Who appoints him?—The Government.

4646. I am speaking of the men representing the locality; who appoints them?—Oh, that is the whole Harbour Board, and the Harbour Board is an elected body.

4647. You suggest the Chairman of the various Harbour Boards?—Of the Harbour Commissioners, who are an elected body; they are elected by the public.

4648. But you suggest that the Chairman of that Board should be an adviser to the engineer and inspector that you propose?—No, no; the whole Board. For instance, in our Harbour Board we have a Navigation Committee that deals with the navigation—altogether with that type of thing. Supposing that

my plan was carried out, it would be the Navigation Committee of the Belfast Harbour Commissioners that would deal with that; the expert would come down and confer with that committee, and the harbour-master and all the pilots and the pilot-master would all go on the spot.

4649. (*Admiral Henderson.*) I have only one or two questions to put. Plainly, you have advocated practically that the lighthouse administration should come under State control absolutely?—Yes, absolutely.

Central Lighthouse Authority: Advocated.

4650. Now, supposing that that was not practicable, would you consider that a Central Board, on which there were representatives of shipowners, of the underwriters, and of the Admiralty, and shall we say of the Board of Trade itself, and of the masters, the shipping interests generally, would be a good substitute for the State control—that is, a governing consultative body that met only once a quarter, and that took the main points of the financial control and the consideration of new works, and decided on it with what I call an expert Board—that is to say, a small body of two or three expert officers which you have been suggesting to do the executive work, with a properly decentralised system of inspectors and so forth, and engineers too, in Scotland and Ireland. Do you think that that would be a form which would be acceptable according to your ideas?—Next to the proposition I put, I think that would be the most acceptable one.

United Kingdom: Lighting of coasts of, inferior to that of other countries.

4651. You have said a good deal about the up-to-date lights and signals procurable, but, of course, you understand—in fact, you advance it—it is like most other questions—a question of ways and means—money?—Yes.

4652. That these Boards and the Board of Trade itself are governed by pecuniary considerations?—Everything is money.

4653. Can you bring forward any evidence to show that, taken as a whole, our coasts are not as much up to date and as well lit as those of any of our colonies or any other nation?—Oh, yes, unquestionably.

4654. You can bring it forward. Have you got it here; you have only hearsay evidence?—Well, the County Down coast—look at it.

4655. You have admitted, with the one exception which is now wanted, which is already approved, that the County Down coast would be the most up-to-date part of the whole coast of the United Kingdom?—It is only one of the legs of the stool that has agreed to it; the Trinity House has not done it, nor has the Board of Trade done it, nor has the Financial Secretary agreed to it; you do not know where you will be before it is through.

4656. Granting that what you say is correct, is it your belief that the loss of time and effort and everything under the existing system is due to the ancient character of the present system of administration?—I can only speak from experience.

4657. And that if it were modernised it could be run at a less cost?—I do certainly; unquestionably.

4658. Does not Lloyd's do the work of reporting passing vessels?—They do, yes. It is a startling fact that the County Down coast has been a mine of wealth to Lloyd's agent out there.

Wrecks.

4659. Could not Lloyd's agency be employed to inform your dockers?—I knew a man who had a small income, and lived in a house at three shillings a week, and he now owns a large farm in County Down, and he is a salvage man, and his income is I do not know how much per year owing to the wrecks on the coast. They have been a magnificent harvest for him. My wreck chart would do away with his work.

4660. Is it true, on the question of wrecks, that the number of wrecks on the coast is diminishing?—Not from Saturday night on the Land's End.

4661. You do not think so?—No, I do not.

4662. But have not improvements in nautical appliances in a larger number of steamers lessened the number of wrecks that there were a few years ago also?—One wreck to-day would represent perhaps 200 fifty years ago. For instance, the "Suevic," the White Star liner, which was built in Belfast, of 12,000 tons, would represent a whole fleet of 300 or 400 tons. It is something melancholy to see that magnificent ship there on the Land's End.

4663. Yes, but it was in a fog?—Yes.

4664. The Boards at present are assisted by experts; they have their expert engineers and their expert people generally?—All I say is, the Dublin Board is composed of a body of gentlemen second to nothing in the country. You could not have nicer men or nicer officers; they are courteous, civil, and everything you like.

United States: Efficiency of lighting of coast of,

4665. Do you know that the American Board is very much more hard up for money than we are, and that they have greater difficulties?—I know that they have all the difficulties. I was speaking to an admiral the other day—I was dining with him. We were talking about the lighting of the coast, and we were talking about the American system. "Well," he said, "America is a great country; there are millionaires there; we in England cannot do the things they can do in America, but one thing I do know, and that is that the coast is well lit."

4666. You said something with regard to compulsory sounding. Now, how could you carry it out, compelling merchant ships to take soundings when they are in fogs?—It is compulsory now; it is compulsory in the only way that you can make it compulsory, that if a man is found negligent or not using the lead in a fog he gets sacked; that is all you can do. I was speaking to Mr. Pelham to-day in the Board of Trade, and he said, "You have passed Factory Acts and that sort of thing to save people by the bye-laws and all the regulations you can put upon the wall all over, but nothing is done for this."

Telephonic Communication.

4667. One other point I want you to consider on the question of these telephones you suggest. You must recollect you then get into international questions, because you make your lightships, which are immune from attack in war, signal stations, giving information?—Do you know what it would do to connect Belfast with the telephone?

4668. I am not speaking of that; I am speaking of the question of war. Supposing that an enemy came along, and you had a signal at a lighthouse, he would knock that lighthouse down. At the present moment, by international law, he does not touch the lighthouse?—Yes.

4669. It is a point to be considered. What I want to show you is that there are difficulties, so far as that is concerned?—That there are difficulties.

4670. Now, as a practical man, when you have considered the administration of all these various Boards, I want to know whether you do not consider it a very extraordinary anomaly that the Trinity House Board should be paid £7,000 a year, while the other poor Boards are not paid anything at all for doing practically the same work?—I would wipe that out. My theory would wipe the £7,000 a year and all the others out. I have studied this thing, as you see, carefully out, and what I recommend is a very, very simple thing, a re-charting of the wreck charts on the coast.

THIRTEENTH DAY.

Tuesday, 26th March 1907.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Mr. T. F. Cooke, Mr. H. J. Forde, Mr. Marcus Lynch, and Mr. T. N. Redington, called in; and examined.

Mr. T. F. Cooke, Mr. H. J. Forde, Mr. M. Lynch, Mr. T. N. Redington.

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4671. (*Chairman.*) Perhaps I had better begin with Mr. Cooke. Mr. Cooke, you are Chairman of the Londonderry Harbour Board, I understand?—Yes, Sir.

4672. Are you here to express the views of the Harbour Boards in Ireland generally, or only of the Londonderry Harbour Board?—Oh, only of my own Board.

4673. Has it been the habit of Harbour Boards to meet to discuss matters of general interest in the past?—Not in Ireland, I think.

Harbour Boards: Representation of, on Irish Lights Board advocated.

4674. Because I observe in your *précis* you say, "The question of the present constitution of the Irish Lights Board has been under the consideration of the Harbour Authorities in Ireland on many occasions during past years, and it has been the unanimous feeling that these authorities should be represented on the Lights Board"?—That is so, but as far as my time is concerned, during the time I have been Chairman of my Board, we have had only one meeting. We have had a great deal of correspondence during the last ten years on the subject with the other Boards.

4675. Have you made any representations on this subject to any authority, Parliamentary or otherwise?—No, we have not.

4676. So you have not had an opportunity of expressing your views publicly?—No.

4677. Before the present one?—No.

4678. I see you say that the Londonderry Port and Harbour Commissioners have no specific complaint against the Irish Lights Board?—That is so, but although we have no complaint against them, our idea is this: that it would be a great deal of use on the Irish Lights Board if they had more local representation on it. The Harbour Boards in Ireland, of course, have their engineers and their pilots and their various officers of that sort, and we have always been under the impression that we could give the Irish Lights Board a great deal of valuable information on certain subjects. Now, to illustrate that, there is a case in point at the present time, upon which we are corresponding with the Irish Lights Board; that is as to the position of a buoy placed at the entrance to Lough Foyle about two years ago, and it is the unanimous opinion of all the masters frequenting the port that that buoy is not in the proper position; that it is about two miles away from where it should be. Well, we have made various reports to the Irish Lights Board on the subject, and it has not been altered.

4679. And your idea is, that if you had a representation on the Board you would be able to urge your views on the Board with greater effect?—Yes, for the local requirements of the coast. There is another matter—I do not know whether it is the proper time to mention it or not—but there is a feeling on the part of the captains and people who are navigating the north coast of Ireland, that the lights on Rathlin Island are not sufficient. They think there ought to be a light on the western side of Rathlin, because vessels bound to the west cannot see the present light on it, and make use of the Sound, and they think if there were a light on the western side of Rathlin, and a sounding buoy or a siren, or something of that sort, it would enable them to use the Rathlin Sound, which they cannot do at present at night.

Rathlin: Establishment of light at, advocated.

4680. Does the question of the improved marking of Rathlin Island come in any way specially within the cognisance of Harbour Boards, or of your own Board?—No, but the way it comes before us is this; that our port is just immediately beyond it, and it is largely used by coasting steamers, and Atlantic steamers, too, that enter the port of Lough Foyle.

Harbour Boards: Representation of, on Irish Lights Board advocated.

4681. My question was directed to this: Do you think that for the marking of the coast at a place like Rathlin, or take in the south an important lighthouse like the Fastnet—do you think that in connection with seamarks of general utility such as these the presence of representatives of the local Harbour Authorities on the Irish Lights Board is desirable?—I do, yes.

4682. Have you considered the constitution of the Board generally? Your present suggestion is that a certain number of representatives of the Irish Harbour Authorities should be placed upon the Board, but is that the only change which you would suggest?—Our idea is this, that with the exception, I think, of Dublin, which has a very large nomination on the Irish Lights Board—their Corporation and their port have a very large nomination on that Board—no other Harbour Board in Ireland that I am aware of, except Belfast, is represented on that Board at all, and therefore we think that a great many people on that Board should be substituted by people who have more practical knowledge of the coast.

4683. You would not sugest that the number should be increased?—No, we do not suggest you should increase the Board, nor do we suggest it should be done away with at all, because my Board recognise that the Irish Lights Board have done very good work and very good service, and all they would like is to see the Board more or less reformed rather than done away with.

4684. You would be contented if each Harbour Board in Ireland having a revenue of not less than £10,000 should be represented on the Board?—Well, we only give that in round figures. It is impossible to put on Harbour Boards with £1,000 a year, because the Board would be too unwieldly. We only take round figures, and say all Harbour Boards having a revenue of £10,000 a year should be represented.

4685. Take the figure of £10,000, which is the one you suggest here, what number of representatives of Harbour Authorities in Ireland would that produce upon the Board?—I am only speaking from memory, but I should think it would represent six or seven Boards in Ireland, perhaps more; perhaps eight.

4686. That is the only suggestion which you are here to present to the Commission, with regard to the reconstitution of the Board?—That is all, Sir. There is another matter which I wish to mention. We did

Telephonic Communication: Advocated between light-stations and Harbour Boards.

think it would be of great importance if these local lighthouses—when I say local I mean Rathlin, Tory, Irishowen Head, and Inistrahull—could be put into telephonic communication with the nearest Harbour Board Authority, for various reasons. A Harbour Board Authority like that has a staff, and could notify vessels in distress, or anything like that, and if notified to them they could notify the proper people.

4687. I think there is only one other point arising out of your *précis* of evidence, and that is with regard to the revenue of the Lights Board being devoted to the purpose for which it is levied, and not used for any other purpose. What do you refer to?—Well, as I understand the revenue of the Irish Lights Board, during the past years there has been a large surplus, and that that surplus has been devoted to other objects. If it is so, we think that that surplus revenue ought to be devoted to decreasing the light dues.

Light Dues: Application of,

4688. Are you speaking of the revenue of the Lighthouse Fund generally?—The revenue of the Irish Lights Board.

4689. There is no special revenue of the Irish Lights Board?—Well, the impression I was under was that the revenue went to other purposes, like paying coast-guards and things of that kind; paying the Board of Trade. Am I wrong in that?

4690. That is a mistake; that is not so. The light dues are paid into the Lighthouse Fund, and are not applied, so far as I am aware, to any other purpose. I did not quite know what it was you had in your mind?—I may be wrongly informed.

4691. It might be the annual outing of the Irish Lights Board?—Oh, no, certainly not; but the impression my Board certainly had was that the surplus passed into the coffers of the Board of Trade, and was applied to other purposes.

4692. That is no longer the case?—That is not so.

4693. Is there any other point on which you wish to give evidence before the Commission?—I do not think there is, Sir.

4694. Very well, then, I will pass to Mr. Forde. You are the Chairman of the Waterford Harbour Board?—(*Mr. Forde.*) I am not the Chairman; we have no permanent Chairman.

4695. But you are deputed to represent the Waterford Harbour Board?—I am deputed to represent the Waterford Harbour Commissioners.

Harbour Boards: Representation of, on Irish Lights Board advocated.

4696. As regards the evidence just given by Mr. Cooke, would you express a general concurrence in that evidence?—I would, Sir; yes. I would like to make one correction. I think that Mr. Cooke placed the revenue that should be represented on the Irish Lights Board at £10,000 a year; that would be rather high. I do not think that would embrace some ports that may legitimately be represented in Ireland. Of course, as he mentioned, he just placed the figure at £10,000, but I think in Ireland—as you would know, Sir—£10,000 would be rather a large revenue for many ports that really might claim to have representation.

4697. Quite so; we are to take it that in principle you think the Harbour Boards should be represented?—I do.

4698. It is quite clear that all Harbour Boards could not be represented?—Quite so.

4699. A line must be drawn somewhere?—Yes.

4700. The most convenient way of drawing it would be to make it depend on revenue?—Yes. Of course, you would have to take this into consideration. There are ports on the west coast of Ireland, if you went on the division of a fixed sum for revenue, you could not have represented, so an exception would have to be made in cases like that. In Galway and Sligo—I do not know what the revenue might be—but I do not think it would be up to £10,000 a year. Generally, I think I may say the Harbour Boards in Ireland should be represented, but some line, of course, should be drawn as to the number.

Appointment of, as local Advisory Committees advocated.

4701. Have you any observations to add to those Mr. Cooke has made on the subject of the constitution of the Irish Lights Board?—Well, I would favour the American system, that the Board should be constituted of practical engineers and master mariners, and then the Irish Harbour Boards represented should form an Advisory Committee, that they would consult with as to matters appertaining to the coast lights that may be considered as applying to each particular Harbour Board that would be represented.

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4702. You mean you would have a Central Board, as at present?—A Central Board.

4703. It would be entirely reconstituted then?—It would be reconstituted.

4704. It would consist of representatives of Harbour Authorities?—Of representatives of Harbour Authorities and the other experts.

Irish Lights Board: Reconstitution advocated.

4705. And how would the other experts be appointed?—Well, I believe in America they appoint them by competition. You see, it is a very technical subject, the whole of this question of lighthouse administration, and you require to have the best men possible to deal with it.

4706. But have you studied the American system?—I have not studied it very closely, but I have heard about it.

4707. Have you any observations to make with regard to your own district?—We have no observations to make in the way of finding fault with the present administration; but we think that if the administration had been more flexible, possibly greater good might have been done. For instance now, in administering our own port, I think we have nine lights in our harbour, and there are a good many cross-channel steamers coming in there, and when the captain of a cross-channel steamer makes a suggestion that a buoy might be placed here, or a light should be placed there, or some alteration should be made, we go into the matter with our pilot master and our harbour master. We hold an inquiry with the cross-channel captains as well, and we then decide what is best to be done.

4708. Have you been in the habit in the past of making representations to the Irish Lights Board?—We have made, Sir, but for years past we have not done so.

Administration of, efficient.

4709. Have you generally found the Board willing to listen to those representations?—They have listened to them; whether they carry them out afterwards is another matter. I would not wish you, Sir, to take it that I wish to complain of the way they have managed things. I think they have managed things very well on the whole.

Local Lights: Establishment of, by General Lighthouse Fund deprecated.

4710. Is there any other observation you would like to add?—It has been stated that at Rosslare the Irish Lights Commissioners have placed a light at the public expense, though it was a private harbour. If that is the case, it is a case of preferential treatment, as we in every Harbour Board might claim that, if you put a light on Rosslare, which is on a private harbour, you might do the same for other harbours.

4711. What do you mean by a private harbour?—Rosslare is a private harbour; it belongs to the railway company, and the light, I understand, was placed there at the public expense. If it is right to place a light on a harbour belonging to a private company, then I say it is the same to place lights at the public expense in other harbours.

4712. Is the Rosslare light put up at the public expense although it is within the jurisdiction, or although it is on a part of the coast line within the jurisdiction, of the Rosslare Harbour Authorities?—I have not been able to find out exactly.

4713. There is nothing else, Mr. Forde, you would like to say to us?—There is nothing else.

Irish Lights Board: Reconstitution advocated.

4714. Then, Mr. Lynch?—(*Mr. Lynch.*) Well, Mr. Chairman, Mr. Forde, who has just spoken, has cut the ground from under my feet. I had a memorandum of what the Galway Harbour Board, which I represent—I am the Chairman of it—wish, and I think it is nearly all embodied in what Mr. Forde has just suggested. The memorandum is very short. The Galway Harbour Commissioners are unanimously of opinion that the present antiquated system of management, as adopted by the Board of Irish Lights, should be abolished, as it does not meet the requirements of the up-to-date class of vessels at present trading to our ports.

4715. That seems to me to go a good deal beyond the views expressed to us by Mr. Forde?—I understood it, Sir.

4716. Would you develop that, please, a little more. Mr. Forde, I think, did not take any very serious ex-

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With Harbour Board for local Advisory Committees.

ception to the administration of the Irish Lights Board?—Would you allow me to read this?

4717. You think it does not meet the requirements of the up-to-date class of vessels at present trading to Irish Ports?—If you allow me to finish it, it will explain itself.

4718. If you please?—It is universally admitted that the French or American systems—I am not exactly certain about it, it is not on my own authority, but I am speaking for the Board—are the best. The former is managed by practical engineers and trained master mariners, these officers being selected by competitive examinations, and we strongly recommend this system in this country. We also recommend that the engineers and master mariners appointed should consult the following Harbour Boards:—Dublin, Belfast, Cork, Waterford, Limerick, Galway, Tralee, Drogheda, Dundalk, Newry, Dingle, Londonderry, Westport, Kinsale, Wicklow, and Wexford, which should form an Advisory Committee—I do not say to be on the Board, but they should be an Advisory Committee—and to allot to each port their neighbouring coasts—that is, to mark out a strip of coast which should be more or less under the jurisdiction of each port. In case of any difference or dispute between the officers or Harbour Authorities the dispute shall be settled by the Board of Trade, whose decision shall be final.

4719. I think you were modest, Mr. Lynch, when you said Mr. Forde had cut the ground from under your feet, because in this little memorandum you have developed a completely different system to that which he has suggested?—I understood Mr. Forde to say the Board should be entirely remodelled. Perhaps I was wrong, but I understood him to say it should be composed of experts and practical engineers, master mariners, and so forth, who would be better able ——

4720. I understood both Mr. Cooke and Mr. Forde to desire that the Irish Lights Board, as such, should continue. Mr. Cooke thought that there ought to be representatives of the Harbour Authorities. Mr. Forde, I think, went rather further, and said that there should be engineers and master mariners upon it also; but you, as I understand, would sweep away the existing Board altogether; you would have a Board entirely of experts?—Yes.

4721. And instead of having representatives of the various Harbour Authorities on the Board you would constitute those Harbour Authorities merely as an Advisory Committee?—Yes, exactly, reconstructing the Board altogether. Those are my instructions. Do away with the present Board and form another one composed of engineers and experts and master mariners, and people who will be more up-to-date in the requirements of the country.

4722. You say: "It is universally admitted that the American or the French systems are the best." Can you describe to us these systems?—I cannot. I have stated what I was told. Those were my directions; I cannot say. I never state anything that I cannot carry out and give proofs of. I am not aware myself, personally, what the American system is; I only say what I have been told by the Harbour Board.

4723. When you say "it is universally admitted," you mean that is the general opinion of your Board?—The universal opinion of the Board. Of course, I do not go beyond taking the orders; I only represent the Board.

4724. When you say: "It is universally admitted that the French or American systems are the best" you mean that is the view which your Board has unanimously directed you to express here?—Exactly. I daresay the Board think that others besides themselves are of the same opinion; but, of course, I cannot say.

4725. Well, then, I should like, if possible, to get a somewhat clearer idea of the nature of this proposal. You say "in case of any difference or dispute between the officers or Harbour Authorities the dispute shall be settled by the Board of Trade, whose decision shall be final"?—Yes, Sir.

4726. Take, for instance, a proposal to erect a new mark upon the coast?—Yes.

4727. You mean that in the first instance the Board, reconstituted on the lines you suggest, should consult with the Advisory Committee, and that whatever conclusion they came to, if they were agreed, it should be carried out?—It was the Advisory Committee who suggested it to the Board of Lights—the new Board; they would make the suggestion. If the Board did not see fit to accede to their suggestion, then the matter could be referred to the Board of Trade, whose decision would be final.

4728. But supposing the Board did accede to their suggestion; supposing the Board and the Advisory Committee were in agreement with respect to the expediency of establishing some new light, what would follow?—Is it the Board of Lights—the new Board of Lights?

4729. Yes?—Very well, if they were, then in that case they could do so.

4730. Out of whose money?—Oh, out of the public funds, of course.

4731. Out of what fund?—The funds supplied to the Board of Lights.

4732. By whom; who would supply it?—By the Customs—the Treasury, of course, or wherever it is supplied now, either by the harbour dues, or wherever they can be got from. They have a certain income now, Sir, have they not?

4733. Is it your idea that the Advisory Committee and this newly constituted Board, when in agreement, should have power to draw upon funds supplied by the Treasury, and only in the event of difference of opinion should any Government Department come in with control?—If there was difference of opinion between the Advisory Committee and the Board of Irish Lights—the new constituted Board of Irish Lights, then they should refer it to the Board of Trade, and their decision would be final.

4734. But supposing there was no difference of opinion between them?—Then, of course, there would be no necessity to refer it to the Board of Trade; it would be carried out.

4735. But in order to carry it out they require funds, and they must make application to somebody for funds?—Where do the funds come from at present, Sir?

4736. The funds come at present from the light dues?—Well, from the light dues, then.

4737. But are they to draw upon the Lighthouse Fund at their own sweet will as long as they agree together?—If they agree together; you see the Board of Irish Lights draw on the funds, of course.

4738. Would you give no Government control at all over the funds; is not that a very surprising proposal?—Well, of course, you could always refer them to the Board of Trade. It is only if the consulting members of the Board, that is, the representatives of the different Harbour Boards, and the Irish Lights agree on the advisability of erecting some new light, or changing something, or improving some buoys, putting bells on them as they are wanted in Galway; and we never thought for a moment that there would be any difficulty if the two Boards agreed as to the advisability and expediency of it in carrying the matter out.

4739. You did not consider the question of the supply of funds?—Oh, we never do in the West.

4740. Is there any other observation that you would like to add to what you have already told us?—No, Sir.

4741. Mr. Redington, I suppose your evidence covers quite the same ground. You are the Secretary of the Galway Harbour Board?—(*Mr. Redington.*) Yes, Sir.

4742. And also Secretary to the Conference of the Harbour Authorities in Ireland?—Quite so, yes.

4743. Have you anything to add?—I do not think I have anything to add to what Mr. Forde, Mr. Cooke, and Mr. Lynch have already stated.

Irish Lights Board: Not in touch with local requirements.

4744. (*Colonel Herbert.*) Mr. Cooke, as I understand, you consider that the present Commissioners of Irish Lights are not in touch with the local requirements?—(*Mr. Cooke.*) Not altogether.

4745. Is that caused, do you think, in any degree by a want of definition of the areas of their functions?—No, I do not think it is; but, when any question arises, of course, it has to be conducted by correspondence—a question of buoys, or beacons, or anything of that sort, which has to be conducted entirely by correspondence. There is no person on it from the locality or the district to ventilate the views of the people who want the things done; that was my point.

4746. Yes; but you see my point with regard to the different functions of the two bodies is that the higher authority—the General Authority—has to deal with the passing lights along the coast, the outer lights, as it were; whereas the Harbour Authorities have to deal with the inner waters?—Yes.

4747. Well, may not that absence of touch arise from the fact of that difference in their functions, and that there is sometimes an overlapping of those functions, and it is not very clear to know which authority should deal with certain lights or with certain areas?—Yes; but my feeling is that in the case of vessels, coasting steamers and all sorts of steamers bound into a port like Derry, the masters or the mates of them go to the harbour office and talk these things over, and they tell them what things they see wrong, and what things they think might be improved. Well, I think it would be an advantage if those views could be brought into touch with the Irish Lights Board. The only way we can do it at present is simply by putting the case on paper and putting that before them.

Local lights: Maintenance of, by General Authority deprecated.

4748. Yes; but if the things complained of fall within the area of your own Board you are at liberty to deal with them just as you like?—Oh, certainly. But we never put cases before them that our own Board can deal with. If we put up a light in our own river or on our lough, which is a matter for the consent of the Irish Lights Board, they have to sanction it, and they always sanction it where it is desirable.

4749. Have you ever considered, in connection with your proposal, the possibility of bringing the whole of the lights under one authority?—Well, that is, of course, from our point of view, rather a big question; we are really only interested in the Irish Lights.

4750. I mean all of the Irish Lights, whether local or general?—Well, we never have considered that; but I do not think it would be a desirable thing to do, because I think every local authority knows its own requirements best. Besides, I do not know how you could work it out.

4751. But if you were represented on the Board, you would be, as it were, a branch of one General Authority?—Yes, but I do not think you could work the local harbours and the local rivers better than they are done at present by having the members elected by the ratepayers, who really are the importers of the goods. And I think they have a fair knowledge because, as I say, they are coming into contact every day of their lives with their pilots, their engineers, and other people like those, and they know what is really wanted better than any single Board could know.

Harbour Boards: Representation of, on Irish Lights Board suggested.

4752. Now, with regard to another suggestion of yours, the obtaining of representation. You said that you did not think it desirable for every local authority to be represented; would it be possible to group authorities so as to obtain representation?—Yes, I think it might be. My idea, when I said that was, if you take any harbours in Ireland, small and large, your Board would be so unwieldy that I do not think it would ever work.

4753. That is evident?—You must not get it too big; but I think it is perfectly possible that you might group the harbours together.

4754. Then, there is always the difficulty of the different degrees of importance of these different authorities?—Yes.

4755. Would not the lesser ones rather be in danger of being swallowed up by the bigger ones?—Well, I do not know really in what way you could work it out; but they would, I think, be better in having some voice along with the larger ports than none at all, as they have at present.

4756. Of course, it is to find out the way to work it out that we are here?—Yes; you might, I think, have ports like Belfast, Dublin, Cork, and Londonderry represented, which are large ports. Of course, when you get round to the western ports, and get to small ports like Tralee and Dingle, that were mentioned, all those ports—I do not know exactly what the size of them may be, but they must be small ports—there is no doubt that a number of those ports could be grouped, and have one representative for those ports. I do not know what the practical way of arriving at it would be, but I should think you could do it in that way.

4757. You think that is a practical idea?—Yes, I think so; I think that could be done.

4758. Then, your idea is that the existing Board should still continue to be the Lighting Authority for Ireland, but that the personnel should be altered?—That is the idea of my Board.

Mr. T. F. Cooke, Mr. H. J. Forde, Mr. M. Lynch, Mr. T. N. Redington. 26 Mar. 1907.

4759. By means of representative members?—Yes; they do not in any way wish to see the Irish Lights Board done away with, because, as I mentioned, my Board recognise that they have done very good service and are doing their work very well; but they do think that with local assistance and local knowledge they might do better.

4760. Yes; but then it is a question of bringing new blood into the present arrangement?—Yes; rather reforming the Board than doing away with it.

Irish Lights Board: Reconstitution advocated.

4761. Mr. Forde, I understood that your proposal was different; that you proposed that there should be a small authority, what I might call a bureaucratic authority, set up to deal technically with the whole question of lights, and then a separate Board as an Advisory Board; was that so?—(*Mr. Forde.*) Well, I think, perhaps, I put the Commission under a misapprehension, if that was the case. What was in my mind was this: when you asked the question, Did I wish to see the Irish Lights done away with? I said No; that was the idea of some people; they think there should be one administration for the whole of the United Kingdom. It was from that point of view that I answered the question, not to be done away with, but we did not mean that the personnel might not be greatly changed. At present the Irish Lights Board are practically appointed in Dublin, and they have representatives put upon it who really do know nothing about the business in hand. I do not wish to say anything disrespectful of them—gentlemen appointed on it; it may be looked up to as an honour to be a member of the Irish Lights Board, but there are really gentlemen appointed upon it who know nothing about the business in hand. My idea was that there should be several experts on it who were practical men—master mariners and engineers, and then that there should be some representatives from Dublin, and representatives from the Irish Lights Board; the whole of them to act together, as it were.

4762. Do you know the constitution of the Trinity House?—No, I do not, beyond, merely just in a very crude way, that it is appointed, I understand, by Lloyd's.

4763. Well, I may tell you, the members, or the Elder Brethren of Trinity House are master mariners?—Yes.

4764. That is their qualification. Is that the idea you have with regard to reforming the Irish Board?—That there should be some master mariner on it; something like, as you say, the Trinity House.

4765. You would have that as one qualification?—Yes, and engineers as a qualification, and then the Irish Harbour Authorities.

4766. And you would propose that these gentlemen should be appointed, these Commissioners for Irish Lights?—Well, in a Board like that, if you appointed mariners, I should think you would have to pay them.

4767. Yes; but who would be the appointing authority?—I should think the Board of Trade at first, and then, when you had the Board constituted with the representatives of the Irish Harbour Boards upon it, they would have the appointing afterwards.

4768. I wanted to get exactly your idea what the system should be, whether it should be nominations by superior authority, or representative, or in what way, just to get at the idea in your mind?—Well, I think it would be better to have a representative authority.

4769. Have a representative authority?—Oh, certainly.

Waterford Harbour Board: Extent of jurisdiction of,

4770. I notice here that you mention with regard to Waterford, your own authority, that you are 18 miles from the sea along a navigable fairway, and so on. That, I presume, comes within the functions of your authority to look after?—Yes. Well, we go down as far as Duncannon, and the Irish Lights take it up from there. Duncannon is about 4 miles, I think, from the mouth of the harbour.

4771. Well, would you still retain?—We would retain from Waterford City down to Duncannon two lights; we have nine lights, I think, there.

4772. You would propose still to retain the whole of that?—Oh, yes.

4773. What I might call the inland waters within your own administration, apart from the Irish

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Authority, under reformed conditions?—Yes, I think it would be better that it should be so.

4774. And have the power of levying dues to maintain it—to maintain it as you do now?—Yes.

4775. That, you think, would be better than to have a pooling of the whole of the dues?—I think it would. You see, as Mr. Cooke pointed out, it is quite the case—we find it, too—that masters and mates of vessels come into the Harbour Office, and if they have anything that occurred to them about the lights round, they mention it there, and in that way the Harbour Authorities are in touch with the men who have actually to use the lights along the coasts.

4776. Mr. Lynch, might I ask you to make quite clear to my mind what your proposal was. Was it exactly what has now been developed by Mr. Forde?—(*Mr. Lynch.*) No, Sir, it is almost the opposite.

Irish Lights Board: Nomination of, by Government desirable.

4777. Or was it what I suggested to you?—Well, I do not know exactly what you suggested; but I think that this new Board should be an Imperial question, not representative, that it should be appointed, that is, an Imperial Board. I do not agree with Mr. Forde in that; I do not think it should be an elective Board—that is, the new Board of Irish Lights. I think it should be nominated by the Government. And I do not know if you understood me when I spoke about the Consulting Committee. The members of the Consulting Committee would not be on the Board of Irish Lights; they would simply be a Consulting Committee that would represent the wishes of their district to the Board of Irish Lights, who would be supreme. The Consulting Committee would have no power except the power of representing to the Board of Irish Lights, and then, if the Board of Irish Lights did not meet the wishes of the Consulting Committee, they could apply to the Board of Trade to decide the question as arbiter. That is what I meant, Sir.

4778. You propose that the Board of Irish Lights should be a Government Department?—Exactly, Sir, and that the present one should be abolished. Any good members, several of the members who are perhaps the best that could be found already, might be reappointed on the new Board. I do not at all find fault with or say anything against the present Board of Lights; all I say is that if there were any not up-to-date upon it, they should be weeded out, and all those who were considered the best men on the situation would be reappointed on the new Board of Lights.

Harbour Boards: Appointment of, as Advisory Committees advocated.

4779. Then you would have, I understand, an Advisory Committee?—An Advisory Committee. It would be more a begging committee, Sir; that is to say, they would ask. Of course you would have to group several Harbour Boards together, and divide the coasts of Ireland into certain portions and let a representative—the Advisory Committee have a representative, of course—bring the wants of their own district before the Board of Irish Lights.

4780. And the more importunate of the local authorities would probably get most?—Oh, well, that is human nature. If you do not apply for work you do not get anything, I believe.

4781. Then you propose also a controlling authority, which should be the Board of Trade?—Yes; that is the umpire to be called in.

4782. (*Mr. Ennis.*) Before I ask you, Mr. Cooke, further, I should like that we should clearly understand each other as to the grounds upon which you are proceeding. Are you thoroughly conversant with the existing system of lighthouse administration of the United Kingdom, and the channels through which your requests or the requests of any local authority have to pass before the work you desire is carried into effect?—I do not quite understand the question.

4783. Are you aware that you make application to the Irish Lights Board?—Yes.

4784. And that it is not within the powers of the Irish Lights Board to grant your request for new works, but that the Irish Lights Board must, in its turn, place its recommendation, in the event of its agreeing with you, before the Trinity House—that they must obtain the sanction of the Trinity House; and, having obtained that authority, they must obtain the sanction of the Board of Trade before the work is carried into effect?—No, I was not aware that they must consult the Trinity House.

4785. Yes, the Trinity House exercises a form of control over all the lighting of the coasts of the kingdom in the sense of holding a power of veto. Both the Northern Lights and the Irish Lights must submit their proposals for new work in the first instance to the Trinity House, they must obtain the assent of the Trinity House to their proposals; and, having obtained that assent, they must obtain the assent of the Board of Trade. Now, are you aware that some years since, eight or nine years since probably, a committee was appointed, known as the Advisory Committee?—No; I am not very familiar with the *modus operandi* on which these Lighthouse Boards are worked.

4786. Before we take your suggestions on this subject I think it is desirable that you should precisely understand the present position of affairs. This Advisory Committee meets and considers applications for new works made by the various Harbour Authorities; and, although the Advisory Committee has no statutory or any power to grant or refuse these works, yet their advice and their recommendations carry great weight with the Trinity House and with the Board of Trade?—How was the Advisory Committee elected?

4787. The Advisory Committee is a Board consisting of shipowners. So that I want you to clearly understand that an application from an Irish body for any new work must first of all pass the gauntlet of the Irish Lights, then the Trinity House, the Advisory Committee, and the Board of Trade?—May I ask, are the funds of all those, the Trinity House, the Northern Lights and the Irish Lights Board, all in common?

4788. They are the General Lighthouse Fund; and, consequently, with regard to applications from any of the countries involved it goes without saying that some controlling authority should exist. Otherwise, one of the countries might eat up the entire fund?—Quite so.

4789. The question of the incidence of the lighting dues is a question which is not before this Commission, and that is a question with which we have no power to deal. I want you to clearly understand that. But the fact that the shipowners have to pay the light dues is a factor in the question which bears very closely upon the efficiency or otherwise of the lighting of our coasts; because, naturally, people who have to pay for a service desire to have the service carried out at as low a cost as possible?—Quite so.

4790. Would you agree that in the consideration of the lighting of the coasts of the United Kingdom there are various interests to be considered?—Certainly.

4791. For example, we have the shipowners who pay the dues, that is, for the general lighting of the coasts outside the Harbour Authorities; you have the oversea trade, a trade which requires large leading lights, such as, say, the Fastnet and the Tuskar. Lights of that type, I presume, you would agree with me, would not be absolutely necessary for the mere convenience of Irish navigation; they are more closely allied to the necessities of the port of Liverpool?—They may be, but they are largely used by the coasting trade, all the same.

4792. Quite so; but I mean that the expenditure incurred upon those large lights more largely benefits the big oversea trade to Liverpool than any other portion of the country?—I daresay it does; but, as I say, they are used by the coasting trade just as much as they are by the liners.

4793. But the oversea trade being the larger in volume derives the most benefit from the expenditure?—No doubt.

4794. A general system of lighting which, presumably, might be most efficient for the oversea trade, might fail to be efficient for coasters or for fishermen?—Why so?

4795. Because some of it might lie upon portions of the coast which the great oversea trade did not pass by—for example, take the North of Scotland?—Yes, the North of Scotland is, of course, a place where the Atlantic trade does not pass by at all. The North coast of Ireland it does, a great deal of it.

4796. What I want to put to you is that the interests of different classes of seaborne commerce are not necessarily the same?—Yes, I follow you.

4797. And that you have different interests to consider?—Yes, I follow you.

4798. Therefore, in the constitution of any lighting authority, those varying interests ought to have adequate representation?—Quite so.

4799. If you constitute the Lighting Authority alto-

gether that of the shipowning interest, the tendency would be, shipowners having to pay the cost, to cut down the cost, and possibly to starve the service?—And also I do not think there is any way of making the shipowner amenable to public opinion at all.

4800. And, furthermore, the interests of the shipmasters and of the underwriters, Lloyd's, would be somewhat divergent from the interests of the shipowners; the shipmasters and underwriters being, no doubt, desirous that the lighting of the coasts should be as highly efficient as possible with the view to the safety of life and property, and to safeguard the interests that the underwriters have undertaken to cover by insurance?—Yes.

4801. Therefore I take it that you would be in agreement with the view that any Lighthouse Authority should contain an element of representation of the various interests involved, which are interests which may be somewhat divergent from each other?—Well, I dare say that would be only fair.

Irish Lights Board: Reconstitution of, suggested.

4802. Now, you have suggested that the Irish Lights Board should be remodelled to a limited extent, by putting upon it representatives of certain Harbour Boards in Ireland?—Yes.

4803. Harbour Boards having a valuation, or having an income of £10,000?—Yes, I only put it at round figures; I do not wish to be tied exactly to those figures.

4804. Do you understand the present constitution of the Irish Lights Board?—Yes, to a certain extent.

4805. Are you aware that the Irish Lights Board consists of a limited number of members *ex-officio* from the Dublin Corporation?—Yes.

4806. And that the remainder of the Board, a large proportion of the body, are members holding office for life and co-opted?—Yes, I am aware of that.

4807. Co-opted by the existing members of the Board?—Yes; and that is why I say I think you should replace some of the men who are upon it by better men; but some men on it I would certainly keep on.

4808. And that in effect it is practically a Dublin Board recruited from the City of Dublin?—Yes, it is, to a very large extent.

4809. To a large extent—with one representative from Belfast?—He has only been put on recently.

Harbour Boards: Representation of, on Irish Lights Board advocated.

4810. Now, it has been suggested to the Commissioners that if the Harbour Boards of Ireland had representation upon the Irish Lights Authority, there might be a difficulty as to members from distant places attending the Board's meetings; do you believe that difficulty would arise?—I do not; I think in the case of any Harbour Board of any size or any standing, their representative would attend the meetings.

4811. Therefore you think no difficulty would arise under that head?—No; I do not.

4812. And you further agree with the suggestion of Colonel Herbert that small harbours might be grouped together?—Yes, I think it is possible that that could be done.

4813. Would you approve of a system of dividing the coast of Ireland, as the Trinity House in England divide their coast, into districts, and having the harbours within the various districts grouped, as to representation on the central authority?—Yes, I think they might arrange some system of that sort. Speaking for instances, of places I am familiar with, Lough Foyle and that district, there is no port, except Derry, between Sligo and Larne. That is a coast line of 160 or 170 miles, and I think it is 185 miles to Belfast. Of course, Larne is a very small port; but from Sligo on the west coast to Belfast on the east it is 186 miles, or 187 miles of coast line.

4814. (*Chairman.*) There is Killybegs, is not there?—That is much further to the west.

4815. Between Derry and Sligo?—It is; but it is a very small port; there is very little done in it—a coal trade—no import trade.

4816. (*Mr. Ennis.*) But you would, as a matter of principle, agree to the grouping?—I think so; I think it might be worked in that way.

4817. And you would give absolute control to the Irish Lights Board of the lighting of the coasts of Ireland, in a similar manner to the powers held by the Irish Lights Board at the present time?—I would—constituted in that way.

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Trinity House control over Irish Board: Unnecessary.

4818. Would you approve of the existing system, whereby the Irish Lights Board have to place their proposals before the Trinity House prior to obtaining the sanction of the Board of Trade; or, would you suggest that the Irish Lights Board should go direct to the Board of Trade?—Well, of course, if the Irish Lights Board, the Northern Lights Commissioners, and the Trinity House were all one common fund, I daresay it is perfectly right they should consult each other in what they do. I thought the Irish Lights Board was responsible entirely to the Government and the Board of Trade in what they did.

4819. I want to put the position quite clearly, because it is a rather important point. The Trinity House is a paid Board, consisting of master mariners holding office for life, and obtaining their position by co-option from the ranks; they are known as the Elder Brethren, and they obtain their position by co-option from the ranks of those known as the Younger Brethren, master mariners on a supplementary list, as it may be called. The Scottish Board consists chiefly of the Sheriffs of counties; as a matter of fact, the Scottish Board is largely composed of lawyers, and you yourself know fairly well the composition of the Irish Board. But, whilst the Trinity House is absolute, subject to the control of the Board of Trade, with regard to the lighting of the coasts of England and Wales, they also administer indirectly the lighting of the coasts of Scotland and Ireland, by reason of their possessing a power of veto, as it were, over the proposals of the Scotch and Irish authorities for new works. And my question is: do you approve of that system continuing; or, would you prefer a system whereby Ireland and Scotland would submit their proposals direct to the Board of Trade?—Well, I think they might reasonably submit them to the Board of Trade; that would save a good deal of time and everything else. I do not see why they should submit them to any other.

Central Lighthouse Authority: Disapproved.

4820. Colonel Herbert has put a question to you with regard to the grouping of the Harbour Boards—that the lesser might be swallowed up by the bigger—there might be danger of that—that is, the interests of the lesser harbours might be swallowed up by the bigger; but, would not that argument apply with greater force to any suggestion to create a central board in London to deal with the entire coasts of the United Kingdom, and to abolish the Irish and Scotch Boards altogether; you would not approve of that?—I would not—I cannot myself see why the smaller Boards would be hit by the business at all—as I say, they have no representation at present, and it is impossible to expect them all to be put on the Board. If they were grouped and had one representative, they could make known their views to that representative.

4821. Would you approve, in any reconstitution of the Lighting Authorities, of the Irish and Scotch Boards existence being absolutely terminated, and the entire lighting of the coast of the United Kingdom being governed by a central body?—I would not like to see it governed by a central body; I would prefer to see them as they are.

Harbour Boards: Representation of, on Irish Lights Board advocated.

4822. Now, you have referred to specific instances with regard to your dealings with the Irish Lights Board, a buoy at the entrance to Lough Foyle, which you consider should be placed a couple of miles distant from its present position; you failed to obtain what you desired in that respect, and you consider that the representation of your own Harbour Board would be of advantage to them in such a connection as that?—I do, in local matters.

4823. You have also referred to the desirability of a light at Rathlin; now, I want to know, are you aware that in 1903 the Commissioners of Irish Lights submitted an estimate of £25,000 for a new light and fog-signal at Rathlin, which went through the channels that I have described to you; that this suggestion was recommended by the Commissioners of Irish Lights; that the Advisory Committee—this committee of shipowners which I told you of—recommended a light at Rathlin; but when they found that the light would cost £25,000 they dropped the suggestion and would not sanction it?—I was not aware of that.

4824. And that, therefore, with regard to that light at Rathlin, the difficulty seems to have arisen, not with the Irish Lights Board, which submitted the esti-

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mate and proposal, but with the controlling Authorities on the other side.

4825. (*Chairman.*) Did not the suggestion for a light at Rathlin originate from the Advisory Committee?

4826. (*Mr. Ennis.*) Yes. I have stated that the Advisory Committee made a few suggestions for new works, but they recommended the vetoing of a very large number. One of the works they suggested was a light on Rathlin Island, but when the cost was ascertained to be £25,000 they would not touch it; and the suggestion was dropped?—Might I ask—I have gained a great deal of information here to-day about things I did not know anything about—is not the Irish Lights Board rather a wealthy institution?

4827. The General Lighthouse Fund is controlled by the Board of Trade; all expenditure from that fund must obtain the sanction of the Board of Trade, and the Irish Lights Commissioners must obtain sanction for all their expenditure from the Board of Trade. All new works must not alone obtain the sanction of the Board of Trade, but must, furthermore, obtain the sanction of the Trinity House, officially and unofficially, and of the Advisory Committee of Shipowners?—I understand; but the information I really asked for was, taking the light dues that are charged at present in Ireland by the Irish Lights Board, and taking their expenses on the other side, is there not a large surplus?

4828. (*Chairman.*) I think you are under a misapprehension as to that. The dues are charged upon vessels at so much a voyage; they are not locally charged?—I know, Sir.

4829. The funds so raised go to a common fund, called the Lighthouse Fund?—Of the United Kingdom. I understand now.

4830. (*Mr. Ennis.*) Formerly, dues were charged on particular lights, but by a recent Act that system was changed, and vessels pay so much per voyage now, irrespective of the particular lights they pass by. The money goes into the General Lighthouse Fund, and the various Authorities round the coast draw from that General Lighthouse Fund, which is controlled by the Board of Trade. But there is one point that you may desire information on. It is quite true that formerly the moneys raised from the Lighthouse Fund were applied to purposes other than the lighting of the coasts. That has ceased. The moneys now raised from the Lighthouse Fund are applied to the lighting of the coast solely; and, as a matter of fact, the light dues have been reduced by 12½ per cent., and a further reduction of 7½ per cent. in the near future is contemplated. I think that is all I have to ask you?—Thank you.

4831. Now, Mr. Forde, I do not quite grasp your suggestion with regard to this Irish Board. You understand now the position of the Irish Lights Board?—(*Mr. Forde.*) Yes, I do.

Irish Lights Board: Reconstitution advocated.

4832. And do you suggest that there should be advisory committees of the Harbour Boards?—Well, I do not think I suggest that. What I did suggest was that the present Board should be reconstituted, and that it should have upon it experts, master mariners and engineers, who would be paid, and that it should have upon it representatives of the Irish Harbour Boards. Of course, there would be some of the present representatives as representing Dublin.

4833. Yes, but I would point out that at present the Irish Lights Board have engineers and master mariners who are paid, but they do not sit upon the Board; they are the servants of the Board; they do not constitute the Board itself. I want to get a little more clearly your view upon that point. Do you propose to put the engineers and master mariners upon the Board itself, they being the paid servants of the Authority?—Under those circumstances I do not suppose you could put them on the Board, except, as I understand, is done by the Trinity House.

4834. Who would make the appointments of these experts that you suggest?—Well, I suggest that it be done by competition.

4835. Yes, but who would make the appointments?—The Board of Trade in the first instance, and then the Irish Lights Board afterwards.

4836. The Board of Trade in the first instance?—Well, you must make a beginning. Of course, if you were to reconstitute, make a new Board altogether.

4837. At present, if you had to appoint an engineer to a vacant position in the Irish Lights Board service, that engineer would be appointed by the existing Irish Lights Board?—I presume so.

4838. I want to know whether your suggestion is, that in future a vacancy in the office, of say an engineer or secretary—any of the paid officials—of that Board would be filled by the Irish Lights Board, or would be filled by a central authority in London?—I should say that in future it should be filled by the Irish Lights Board, provided that the man so appointed was a competent man, of course.

4839. Then you do not adhere to the suggestion that these paid officials should have seats upon the Board itself?—No, I do not.

4840. And, therefore, when you speak of the Harbour Boards, your idea is that the Irish Lights Board should consist, I presume, of the representatives of Dublin Corporation as at present, the *ex-officio* members?—I would not wish representatives of Dublin Corporation at all; I do not see why they should be.

4841. I have pointed out to you that that is the present composition of the Board, and I want to know whether you think they should continue?—No, I think they should be done away with.

4842. You think that the representation of Dublin Corporation should cease?—I do not see what they have to do with it at all. The Dublin Port and Docks Board, which is the Harbour Board for Dublin, should have a representation.

4843. The representation of the Dublin Port and Docks Board, which is the Harbour Board for Dublin, I take it, would be covered by the suggestion you have also made as to the election of representatives of the various Harbour Boards?—Certainly.

4844. They would have their ordinary share of representation on the Lights Board by election?—Yes.

Waterford Harbour Board: Constitution of.

4845. I do not know whether in the Waterford Harbour Board this obtains or not, but I do know that in some of the Irish Harbour Boards an element of the constitution of the Board is a certain number of members nominated by the Board of Trade?—No, that does not obtain with us. Under our constitution the Chamber of Commerce appoint a number; the Corporation appoints some, and, curiously enough, the town of Clonmel, which is thirty miles away, appoints five representatives.

4846. But you have no nomination upon your Harbour Board by the Board of Trade?—No nomination.

4847. I do not know what the other gentlemen's experience is, but I know in the Port of Wexford the Board of Trade nominates two members?—There are some harbours in Ireland constituted on the same basis.

4848. Would you approve, with a view of obtaining sufficient representatives, of master mariners on the Irish Lights Board; would you suggest men of that class being nominated by the Board of Trade?—Well, I have been thinking over what you have been saying to Mr. Cooke about the leading lights and the coast lights, and I must say that it would be only fair that the shipowners should have some representation on it. I do not say they should have much, because I think that the Harbour Boards would embody that representation to a certain extent, because they would be shipowners.

4849. In practice the Harbour Boards are largely composed of shipowners?—We will have shipowners naturally on them; in that way they do get representation; but I do think as to getting representation for the liners and oversea trade that the Board of Trade might have power to appoint a limited number to represent them.

Efficiency of lighting of coasts of Ireland.

4850. Is it your opinion that the lighting of the coast of Ireland at the present time is in a high state of efficiency?—So far as I know, it is. When I say that, I am not in a position really to know very much about it; but I do recollect now hearing about a friction that arose between the Trinity House, I think, and the Irish Lights Board in connection with a burner invented by Mr. Wigham, of Dublin. I think they refused to sanction the use of it for Ireland for a good many years, until the efficiency of it had first been proved in France, or somewhere else.

4851. You raised a question with regard to the lighting of a private harbour at Rosslare; it seems to me you are under some misconception?—Very possibly I am.

Local lights: Provision of, out of General Lighthouse Fund deprecated.

4852. Are you aware that the limits of Wexford Harbour extend from Greenore Point to Blackwater Head, a line which would contain Rosslare Harbour?—Yes; I was not aware that the Wexford jurisdiction extended there.

4853. The jurisdiction of the Wexford pilotage district, and that a light erected on the new pier at Rosslare has been erected by the company interested itself?—It has.

4854. I take it your question refers to a light in the fairway?—In the fairway.

4855. Close to the Tuskar, outside?—Yes.

4856. Are you aware that the Harbour Authorities have no power to erect lights outside their own jurisdiction?—No, I am not aware of that; but I know this, they were running a very grave risk in running their steamers along there without some light. I know that representations were made to them very strongly on the subject.

4857. I quite grasp your point that the payment for the service should be borne by private individuals, and not by the General Lighthouse Fund?—Yes.

4858. But I would also put it to you in this way: Will not such a route as that be a great public convenience?—Well, I do not wish to be deemed as objecting on the ground that it will not be of great public use, such a light there; but I do think that the expense of it, seeing that Rosslare is a harbour that would practically continue to be used solely by the railway company, and for their benefit, should be paid for by them.

4859. Your contention is, I take it, that the light was necessary?—Was absolutely necessary.

4860. Yes, but I want to get it from you in this way: Your contention, I take it, is not that the private company owning Rosslare Harbour should erect a light themselves in a locality in which they have no statutory power to erect a light, but that they should contribute towards the General Lighthouse Authority who does erect the light; they should contribute towards the cost?—Yes; I agree with you.

4861. But that the erection of that light should be made by the General Lighthouse Authority, because if you give private local authorities power to go into the fairway, into the great trade channels, and erect lights, they may carry out work which would be objectionable?—It would not do at all from that point of view.

Maintained by local funds.

4862. You are aware that the Harbour Authorities of the United Kingdom, with one notable exception—at least, one notable large exception—the port of London—pay for the lighting of their own harbours?—Yes; of course, we pay for the lighting of our own harbours.

4863. Are you aware that the port of London does not?—No, I was not; it is another grievance to Ireland.

4864. No, a grievance to the shipowning community, I should say. But the Harbour Authorities pay for the lighting of their own harbours, and there is necessarily a certain area, as it were, between the boundary line of the Harbour Authorities and the area administered by the General Lighthouse Authorities, which is, as it were, a kind of No Man's Sea?—Yes.

4865. And which, if inefficiently lighted, might very possibly lead to disaster to anyone bound for or trading to any particular harbour. I mean, take your harbour at Waterford. No matter how efficiently you light your own harbour, if the General Lighthouse Authority failed to erect proper lights, say, at the Hook or Dunmore, the entrance to your harbour, you might possibly have great disasters to your shipping?—Certainly.

4866. And therefore efficient co-operation between the local authorities and the General Lighthouse Authorities is eminently desirable?—Absolutely necessary.

4867. Mr. Lynch, I think you have said that you differ altogether from the views of Mr. Forde in regard to the constitution of the Irish Lighthouse Authority?—(*Mr. Lynch.*) Yes, Sir, I am sorry to say I do.

Irish Lights: Administration of, by Government advocated.

4868. Do you suggest that the existence of the present Irish Lights Board as a matter of fact should cease, and that a new board should be appointed?—Yes.

4869. By whom?—By the Government. Of course, when I say the Government I mean the Board of Trade. The Government consists of different kinds of offices—the Foreign Office, the Home Office, the Irish Office, and so forth—but by some department of the Government; it should be put under some department of the Government.

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4870. Well, what do you suggest as the personnel of this Board that would be appointed by the Government; what should be its number; what should be its constitution?—The Government would be much wiser than I am. I leave that to themselves.

4871. How many members would you have?—Oh——

4872. Would you suggest a paid board?—No, sir.

4873. A non-paid board?—A non-paid board.

4874. To be nominated by the Government?—To be nominated by the Government.

4875. From the ranks of Irishmen, or from people across Channel, or where?—Well, for the Irish Lights I would certainly say from the ranks of Irishmen.

4876. Would you limit the appointement by the Government to any particular class?—Oh, no, Sir, the best they could get; what they consider the best.

4877. You would not make any qualification with regard to their possessing nautical knowledge?—Of course; I do not suppose an alderman of the City of Dublin would be chosen by the Government.

4878. Yes, but your suggestion would leave it open to the Government to choose such a person unless you make some restriction?—I assume the Government would choose the best. I would not presume to tell the Government whom they were to choose. I presume they would choose the people who were best fitted for the business.

4879. Will you suggest that the Irish Lights Board, having been abolished and a fresh board created by Government appointment, that Government appointment would be permanent; that vacancies would be filled up by Government appointment?—Yes, certainly, Sir; not co-opted.

4880. No, not co-opted, but it would be permanently a Government appointment?—Yes.

4881. There would be no representative element or elected element?—Not on the Board itself.

Harbour Boards: Appointment of, as local Advisory Committees approved.

4882. You suggest that the Harbour Boards should be advisory to that other board?—Yes.

4883. But would the Harbour Boards that you suggest as being advisory hold practically the same position that I have described with regard to the Shipowners Advisory Committee at present—bodies possessing authority to make suggestions, but having no power to carry those suggestions out themselves?—Certainly, Sir. Of course, with regard to the Trinity House Board, and the Advisory Committee at present, and the Board of Trade, and all that, I should like to see as much red tapeism cut out of it as possible.

Trinity House: Abolition of control over Irish lights suggested.

4884. Would you suggest that the Irish Board should still have to pass its proposals through the Trinity House, or that the proposals of the Board should go direct to the Board of Trade?—To the Board of Trade direct.

4885. In other words, which system would you consider most effective—a system as at present, whereby a board consists of non-nautical experts, who have to pass their proposals through the Trinity House, who are nautical experts to the Board of Trade, or a board containing a reasonable number of nautical experts within its own body, and making its recommendations direct to the Board of Trade?—I presume, Sir, that the new board as constituted would be equally scientific as the Trinity House. I do not at all assume, as at present, the aldermen of Dublin, whoever they may be, lawyers and so forth, would be on the board.

4886. Therefore, your suggestion would be that that board, the remodelled board, containing a sufficient amount of nautical element within itself, would, instead of passing through the Trinity House to the Board of Trade, go to the Board of Trade direct?—Yes, I presume the whole of the board—not a certain portion, but the whole of the board—would be capable men.

4887. But you would obtain no guarantee on that point except your belief that the Government would appoint capable men?—I do not see any guarantee that could be given except that.

4888. Your suggestion does not contain any pro-

Mr. T. F. Cooke, Mr. H. J. Forde, Mr. M. Lynch, Mr. T. N. Redington.
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posal that the men appointed by the Government should possess any nautical qualification?—That is to be presumed, Sir.

4889. But it is a statutory condition with regard to the Trinity House?—Well, they make it a statutory condition with the Government, too. I presume if you could not trust the Government you could say you could make it a condition to them that they should be capable men.

4890. I should just like to ask, Mr. Redington, do you agree with the views of Mr. Lynch?—(*Mr. Redington.*) Well, not precisely.

Irish Lights: Administration of, by Government advocated.

4891. Well, perhaps you would like to express your own views?—Well, the majority of my board seem to think the proposed new board, the reconstructed board, should take the form of a new Government Department, and should be composed among others of practical trained men, such as engineers and master mariners, and that these people should be obliged to pass an examination before the Board of Trade, and that the latter be paid and formed on the new board.

4892. You suggest a paid board?—Yes.

4893. What size do you suggest that Board should be?—Well, in or about the present number that is on the Board of Irish Lights.

4894. (*Chairman.*) May I just interpose this question? I should like to understand distinctly whether in making these suggestions Mr. Redington is speaking on behalf of the majority of the Boards that met in conference?—Well, I did not say that, Sir.

4895. And of which he was the Secretary?—I am alluding to my own Commission, Sir—the Harbour Commissioners in Galway.

4896. (*Mr. Ennis.*) Yes, Mr. Redington?—It has been suggested, Sir, that this new Board should be composed of practical men, master mariners and engineers, and that these men should be paid, and that their suggestions should be submitted, in the case of any new lights or buoys being constructed, that they bring these under the notice of the Board, and if the Board think it well to carry out the suggestions, that they submit their proposals to the Board of Trade.

Efficiency of lighting of coasts of Ireland.

4897. Does your Board hold that the existing administration of the lighting arrangements for the coast of Ireland by the Irish Lights Board is inefficient?—Well, in some parts. On the west coast it is good; we have very little to complain of. But I have heard of a number of wrecks on the north of Ireland, and the south, and different places.

4898. But you do not make any specific complaint? Oh, no, Sir.

4899. Of the want of effective lighting on the part of the Irish Board?—No, Sir, we say it might be better.

4900. But you understand thoroughly the proposals put forward by the Irish Lights Board, such as this proposal I have instanced with regard to Rathlin, that it does not necessarily follow that the Irish Lights Board is at fault with regard to the non-carrying out of that proposal, or of similar proposals?—Well, there is one instance in Galway that I could give you, and I believe it has been brought under their notice, and that is the particular spot the lighthouse is built on—it is built on the centre of the island, and it is placed much too low, and it has been brought under their notice that if the lighthouse were shifted and brought down to the extreme end of the island and higher built it would be ever so much better. Shipmasters have complained of it frequently.

4901. Have there been any wrecks to your knowledge in consequence of that?—I believe there was one owing to that.

4902. Have you failed to obtain redress from the Irish Lights Board on that point?—There has not been anything done.

4903. How long is it since you made the suggestion?—I think my predecessor in office made it years ago.

Irish Lights Board: Objections to constitution of,

4904. What I should like to ask is, if you have no grave charges of inefficiency to make against the Irish Lights Board, why do you suggest changing an unpaid body, which performs gratuitous services, for a paid body, which would be a severe tax?—We think the work would be carried out better. The present men are not seafaring men, they are not nautical men, they do not pretend to know. I am giving you the views of my Commission; I may be wrong.

4905. Quite so, I understand; but what I wish to arrive at is, though what you say is true, that the members of the present Board are not nautical men, and whilst suggestions have been made that the advice of the Harbour Boards would be very useful, provided representation from the various Harbour Boards were granted on the central authority, do you consider that there is sufficient dereliction of duty by the Irish Lights Board to call for the appointment of a paid board, which, were it anything like the size of the present Board, would undoubtedly cost a large annual sum?—I cannot give you any glaring instance of how these people are deficient in their duty. I cannot supply any information on that point.

4906. Do you think it is the opinion generally of the Irish Harbour Authorities, with whom you have been in consultation and conference, that the Lights Board should be reformed in the method that you suggest; that is, a paid body nominated by the Government?—I do not say that, Sir, but it is the unanimous feeling of all the Harbour Boards in Ireland that it should be reconstructed in some shape or form.

4907. But you do not bind yourself, I take it, or these other Boards, to the view that you have put forward, that the reconstruction should take the form of a board nominated by the Government, and paid?—No, I am simply speaking for my own Board as regards that point.

Central Lighthouse Authority: Approved.

4908. How would you view a proposal to abolish the Irish Lights Board altogether, and to merge its function in a central authority dealing with the entire United Kingdom, and operating from London?—Well, personally I would be in favour of that scheme, provided the central authority had the advice of experts or nautical men.

4909. But at the same time, if it is necessary to obtain a paid board for Ireland, would not a central board tend to economy?—Undoubtedly, but we seem to think that if this paid board were in existence the work would be done ever so much better.

4910. You may not be aware that with regard to works objected to by the Advisory Committee that I have spoken of——?—The Advisory Committee is composed of shipowners, you see.

4911. Who have no statutory power to stop anything, but whose advice is largely valued by the authorities who have such power——?—Pardon me one moment, Sir; a suggestion was made by Mr. Cooke as regards one light, and it was referred to the Advisory Committee, and the Advisory Committee condemned it—that is what I gathered from your remarks—condemned one particular light Mr. Cooke was talking about.

4912. No, the Advisory Committee recommended that light, but were not satisfied to spend the money on it that it would cost?—Oh, was that the reason?

4913. They were not satisfied to spend the money. They admitted the desirability of the light, but they were not satisfied that the money should be expended; but with regard to the operation of a central board, are you aware that the Advisory Committee objected to twenty-four works on the coast of Scotland, sixteen of which works were subsequently sanctioned by the Board of Trade?—I was not aware of that, Sir.

4914. Would not such an instance as that go to show that a central authority might possibly not be mindful of remote localities?—Yes, undoubtedly.

4915. Well, I take it then, that your evidence broadly amounts to this, that on behalf of the Galway Harbour Board you recommend the abolition of the Irish Lights Board, the appointment by the Government—nominated by the Board of Trade—of a paid Board in lieu of the Irish Lights Board, but that you do not seek in any way to bind any of the other Harbour Authorities in Ireland who have met in a conference, to which you acted as secretary?—Precisely, Sir.

4716. (*Chairman.*) I should like to supplement the last question of Mr. Ennis by a further one. You are here partly in the capacity of Secretary of a Conference between the various Harbour Authorities in Ireland, which, I understand, took place last year?—Yes, Sir.

4917. Was any view as to the constitution of the Irish Lights expressed by that Conference?—Yes, by a number of them, Sir; a number of proposals were suggested.

4918. Was there any point on which there was unanimity or a large preponderance of opinion?—Well, no, Sir; nearly each Harbour Board expressed different

Harbour Boards: Representation of, on Irish Lights Board,

views on the subject, but there was no unanimity. They were unanimous on this one point, that the Board should be amended or changed, so that the Harbour Boards should be represented on it.

4919. On that point there was unanimity?—There was absolute unanimity.

4920. (*Mr. Ennis.*) But if that was so with regard to the Harbour Boards, the view of the Galway Harbour Board differs from that altogether?—It does.

4921. Because you do not suggest that the Harbour Boards should be represented on this Authority at all; you suggest that they should be merely advisory to that Authority?—Quite so.

and Appointment of, as local Advisory Committees advocated.

4922. And that the Authority should be solely and wholly an Authority nominated by the Government and paid?—That is our view, Sir; yes.

4923. (*Admiral Henderson.*) You are aware that the functions of the present Board can be divided into two parts; first, those dealing with new works and alterations to existing lights, and secondly, the administration, the maintenance and the upkeep of what is existing?—(*Mr. Forde.*) Well, I was not aware that that was the way it was managed.

4924. I will ask Mr. Cooke. Were you aware of that? I am asking this question of both of you, rather than in a general sense. I wanted to know whether you were aware in criticising the present Board, that you may divide their functions into two parts; one is the putting forward and the execution of absolutely new works, or the alteration of existing works, that is, the improving of the lights; and, secondly, the upkeep, maintenance, and administration of the existing lights—the whole service. Now, I wanted to ask whether you have paid any attention to the second head? Have you ever considered the efficiency of the Irish Lights Board in regard to their administrative aspects?—(*Mr. Cooke.*) I have always understood and always heard that they have done their work satisfactorily as regards the administration of lights.

Irish Lights Board: Administration of, efficient.

4925. Have you paid any attention to any questions of detail on any of your Boards with regard to administration?—(*Mr. Forde.*) No, we have not; we have not had an opportunity of getting acquainted with the details. Things were managed in such an extraordinarily round-about way that it was useless for an Irish Harbour Board to try to get hold of anything.

4926. Now, you will admit that any improvement should have as its object, if possible, a decrease and not an increase of expenditure?—(*Mr. Cooke.*) So far as practicable for the proper lighting of the coasts.

4927. And your suggestion is that the Board which you recommend should remain an unpaid Board, as it is at present, except that certain officers who are connected with it for the details of duty should be paid as they are at present?—Well, my recommendation was that the Board should remain as at present constituted, with the exception of a certain number of gentlemen who have been co-opted from the Corporation of Dublin and places elsewhere. I cannot see that you can get any better Board. It is not a paid Board, and if they have the advantage of the local experience I think the Board would be all right.

Suggestion for reconstitution of,

4928. Now, would you suggest that in any reformed system use could be made of the Harbour Board officials to supervise a portion of the coast in their vicinity? I am speaking especially in reference to the upkeep of existing lighthouses and vessels?—I do not think that would work, because I think that most of the local Harbour Authorities have not the plant and everything else at their disposal to look after those lights. At present, of course, the Irish Lights have got their own tenders and steamers to supply them with oil and put down the buoys here and there.

Harbour Boards: Extension of jurisdiction of, deprecated.

4929. Your reason being that you do not think there is plant to do it?—No, I do not think it even would be practicable to do it.

4930. What I really mean is, supposing there was a lighthouse at Rathlin Island belonging to the Irish Lights Commissioners, could you maintain it by your existing appliances?—I do not think so; not economically.

4931. Is that your opinion, too?—(*Mr. Forde.*) Yes.

Irish Lights Board: Suggestions as to constitution of,

4932. Mr. Lynch, what you meant by the new Board you proposed was that it should be a Consultative—an Advisory Board?—(*Mr. Lynch.*) Which Board?

4933. The Board that you propose should be a Consultative—an Advisory Board; that is to say, that they should overhaul the work of their executive officers or Executive Board, which was the second Board you proposed, was it not?—Yes, Sir, the second Board; I proposed two. I proposed first of all a Board that would be over the Irish Lights, and then I also proposed a Committee—an Advisory Committee.

4934. They should be the consultative people, and they should say what new lights should be eventually put up?—What we were to ask from the Board of the Lights; what we thought necessary. For instance, now, in Galway—I know something about the harbour, because I had a yacht for many years, and I know it is not at all satisfactory—I was very nearly wrecked two or three times, and only a few months ago, on the request of several masters of ships, we asked the Board of Irish Lights to put lights on two sunken rocks there; there are buoys on them, but in fog you cannot see them, and on a dark night you cannot see them, and we asked them to put bells on them. No answer has been got; I suppose it will be many years before we shall get an answer.

4935. Mr. Redington, you, I think, proposed that the Board should be composed of as many members as the existing Board, that is, 25, should be paid. You said so just now, I understood you?—(*Mr. Redington.*) Well, I did not give any particular number.

4936. You said the same number as the existing Board?—I said in, or about the same.

4937. I think the existing Board is 25, and what would be your proposed rate of remuneration? The Trinity House people receive £500 a year?—And their number is?

4938. 13?—Well, I suppose if you had 5 or 10 in Ireland it would be sufficient.

4939. Because if you had 25 members at £500 a year?—That is out of the question.

4940. That is out of the question; it would amount to £12,500. I want to put before you what I believe to be the case, that the whole of the Head Office expenses, and the whole of the salaries of the existing Irish Lights Board is under £8,000 a year, so I mean in making proposals of this sort you have to be governed by ways and means?—Oh, yes; quite so.

4941. And you must not run the country or the shipowners at present into inordinate expense?—Yes, but it is natural to assume that when men are paid for doing certain work they will do that work more efficiently and better, look after it better; it is their duty. That is what we think; we may be wrong.

Mr. T. F. Cooke. Mr. H. J. Forde. Mr. M. Lynch, Mr. T. N. Redington.

26 Mar. 1907.

FOURTEENTH DAY.

Tuesday, 30th April 1907.

PRESENT:

The Right Hon. G. W. BALFOUR (*Chairman*).

Sir FRANK FORBES ADAM, C.I.E.
Colonel I. J. C. HERBERT, C.B., C.M.G., M.P.
Vice-Admiral W. H. HENDERSON.
Mr. M. A. ENNIS.
Captain C. BIGHAM, C.M.G. (*Secretary*).

Sir GEORGE VYVYAN, K.C.M.G., Captain A. W. CLARKE, called in; Mr. ARTHUR OWEN, recalled; and examined.

Sir G. Vyvyan, K.C.M.G., Captain A. W. Clarke, Mr. A. Owen.
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4942. (*Chairman.*) You are the Deputy-Master of the Trinity House?—(*Sir George Vyvyan.*) I am, Sir.

4943. And in that capacity official head of the Acting Elder Brethren who constitute the Lighthouse Authority?—Yes, Sir.

4944. The Secretary was instructed to send you the evidence which has been taken hitherto, in order that you might have an opportunity of furnishing the Commissioners with any additional evidence, either by way of supplement or by way of rebuttal, which you might desire to offer?—I am much obliged to you.

4945. And in addition to that you have been furnished with some written questions, which the Commissioners desire to put to you. I understand that you have prepared written answers to those questions?—Yes.

4946. Perhaps the most convenient course, therefore, would be for me to begin by reading out the questions, and if you would read your answers to them we would have both the questions and answers upon the minutes?—Certainly.

One Central Lighthouse Authority: Opinions as to,

4947. Do you think any important saving would be effected by substituting a single Lighting Authority for the existing system? Would Trinity House be prepared to undertake the work of the other two Authorities?—I am not prepared to say that no saving would result if this course were adopted; but I doubt whether the saving would be material, as in any case, it would, I take it, be necessary to have branch establishments in Scotland and Ireland to supervise the seamarks in those countries. Of course, if the Legislature decided in favour of one Lighting Authority the Trinity House would be prepared to undertake the work, but in saying this I wish it to be clearly understood that such a proposal will not come from us. The present system works well. I am personally firmly persuaded that local needs are best understood by local men.

Advisory Committee: Works well.

4948. Will you tell us whether, in your opinion, the Advisory Committee has worked well? Would it be a practicable plan to do away with the Advisory Committee, and provide that representatives of shipping and other interests should be placed on the Lighting Authority itself?—On the whole, I think I may say that the Advisory Committee is now working fairly well. I should not have given this answer some five or six years ago, for at the beginning our relations were very strained, but as they have got to know us, and we have got to know them, the friction has been removed, to a very large extent, and our arguments are carried out in a friendly spirit and manner, and I think that the purposes intended by Lord Ritchie when he founded the Committee are now in a fair way of possible accomplishment. Of course, we disagree; we start from essentially different points of view, but I think it is of advantage that these arguments should be produced, not only for the Advisory Committee, but also for the Trinity House. Since the Advisory Committee has been established, in 1900, we have carried out a large number of improvements which have cost a large amount of money, which I am prepared to hand in, if you wish to have it. The shipowners consider that those improvements are paid for by themselves, and, having regard to this position, have systematically opposed most of them, although some of these improvements involved an annual saving. Their position is quite intelligible. I should wish to illustrate it by repeating one incident. We have successfully improved the light at the Skerries, off Holyhead, by changing it from a fixed light of 7,500 candles to a flashing light of 274,000 candles, at a cost of £5,500. The same change was being proposed for the Smalls, another very important landfall, and was opposed. I pointed out that all their objections were merely a repetition of those brought forward against the Skerries, which change had been effected, and had produced a chorus of praise. The answer came at once: "Not from the people who paid for it." "No," said the President of the Board of Trade, "but from those who benefited by it." I think this illustrates the position of each party. You asked me, Sir, whether it would be a practicable plan to do away with the Advisory Committee, and provide that representatives of shipping and other interests should be placed on the Lighting Authority itself. When you say a "practicable plan," I suppose you mean a better one. I am inclined to prefer the present arrangement, and think the various interests are better served than they would be by representation. At present the interests protected are much more numerous than would be the case if representation existed; we are inclined to forget sometimes that the Advisory Committee is not restricted to shipowners, but includes underwriters, and merchants of the United Kingdom, and the members of the Committee are very numerous, although in practice the attendance numbers only from ten to twelve. You could have nothing like this number of representations on a Lighthouse Board. Representatives merely sitting on our Board would not be able to get the grasp of our work. Our Board meetings are only the outcome of our committee work, as our committees are the expression, so to speak, of our real work, which is done day by day by the different members of the committee. No shipowner could or would give his time to this work, even if he were paid for it, as he ought to be. At the same time, if, as a result of your labours here, representation is proposed, the Trinity House will not oppose the proposition, provided it does not destroy their charter.

Tendency of, to encourage economy rather than efficiency.

Shipping Community Representation of, on Lights Board disapproved.

4949. Has Trinity House itself any suggestion to make for altering the constitution of the Lighting Authorities or reforming the present system of lighting the coasts of the United Kingdom?—If I may be allowed to say so, Sir, I think the Trinity House as a body ought to refrain from criticising the composition of the kindred Boards; and with regard to the second part of the question, "or reforming the present system of lighting of the coasts of the United Kingdom," they have no observations to make.

4950. And you have no suggestion to make for a modification of your own constitution?—No, Sir.

Elder Turns.

4951. What is the history of the fees known as "Elder Turns," and what was the amount of those fees prior to 1822? Had the Elder Brethren any other source of income, in their capacity as Lighting Authority, before the Act of 1822 was passed?—We have been unsuccessful in discovering the exact definition of the term "Elder Turns," as they have been

described. The fees called "Elder Turns" were dues charged upon vessels, mainly foreign, entering or leaving the River Thames, which had been the dues of the Elder Brethren and had been divided amongst them from earliest times. In 1822, however, when the reciprocity system was about to be carried into effect, an Act of Parliament was passed by which these fees were carried to the Lighthouse Revenue, and in lieu thereof the Elder Brethren were allowed £7,000 per annum as remuneration for their services in carrying on the business of the Corporation, in their corporate capacity.

Abolition of,

4952. Were the "Elder Turns" secured to the Trinity House by charter?—By Act of Parliament.

4953. At what date?—1822.

4954. Excuse me, I do not think you have quite understood my question. I asked whether the "Elder Turns" were secured to the Trinity House by charter?—I beg your pardon. I cannot tell you.

Origin of, unknown.

4955. You had the right to "Elder Turns" from time immemorial?—As early as 1665.

4956. And perhaps earlier than that. You have traced them back to 1665?—Naturally, Sir, all money that was received would come to the authority which was then the paramount authority, namely, the Trinity House.

4957. Were the "Elder Turns" taken by the Trinity House in respect of any specific duties performed by them?—Of all corporate duties.

4958. Did their corporate duties include duties other than those of lighting the coasts?—Certainly. Some of the duties are specifically mentioned in the preamble of the Act.

Replacement of, by fixed salary.

4959. That is the Act of 1822?—The Act of 1822. It distinctly mentions the examining of pilots and the ballastage. The £7,000 which is divided among the Deputy Master and the Elder Brethren was originally provided by an Act of Parliament dated 29th July, 1822. The preamble to this Act recites the Act of 8 Elizabeth, cap. 13, which authorised the Corporation to set up seamarks, and a grant of 36 Elizabeth, vesting in the Corporation the beaconage and buoyage with all the fees, advantages, salaries, etc., thereto belonging. It further recites that the lighthouse and ballastage work of the Corporation, "and the regulation thereof, and the examination of pilots and the regulation of ballastage, and divers other important duties intrusted by Act and Grant to the Corporation in which the security of shipping and navigation and also of commerce were deeply involved, required the unremitting exertion and superintendence of the Master, Wardens, etc., of the Corporation, and that it was therefore expedient, just, and necessary that more effectual provision should be made for their remuneration." And it was then enacted that in lieu of the remuneration theretofore recited, the members of the Corporation should divide among them a sum out of the General Funds of the Corporation not exceeding £7,000 a year, and all specific rates, dues, etc., theretofore charged with their remuneration should be paid into the General Funds of the Corporation. Practically the available revenue of the Corporation was earned in connection with the lighthouse business; in other words, the £7,000 a year was provided by light dues, and therefore, in the year 1854, when the lighthouse business was separated from the general business of the Corporation by making it subject to the financial control of the Board of Trade, and light dues and also ballastage fees were directed to be paid into the Mercantile Marine Fund, all expenses of the General Lighthouse Authorities, including the remuneration aforesaid, became payable out of the Mercantile Marine Fund. There was, in fact, no other fund out of which the remuneration could be paid, as the amounts received from pilots were to be used for specific purposes, but though paid out of the Mercantile Marine Fund, the remuneration was clearly payable in respect of the general business of the Corporation. The most important specific duties of the Corporation are no doubt the management of the lighthouses and the general administration of the pilotage law, but it has also to be borne in mind that they are always ready to give expert assistance in all nautical matters, and are in fact the body usually applied to by the Board of Trade in reference to any questions of the kind. They have also the management of considerable charities for the benefit of seamen, and supply assessors to the Admiralty Court. They are, in fact, as appears by their history and charter, a body representing the Merchant Service of the country.

4960. The point I was anxious to get at was this. Was the title of the Corporation to these "Elder Turns," in your opinion, of such a kind that had they been deprived of their fees, the Corporation would have been entitled to compensation?—I should say so; by the action that they took they were commuted. The sum of £7,000 was considered then the value of the "Turns" which were taken from the Corporation.

4961. And to those "Turns" the Corporation had had a prescriptive right, which had existed for some hundreds of years?—Yes.

Elder Brethren: System of superannuation advocated.

4962. Do you consider it desirable that Trinity House should be empowered to pension off Acting Elder Brethren after a certain age? Is any deduction made from the salaries of Acting Elder Brethren, who may fail to attend meetings of the Board, or take their due share of the work? Is it open to the Acting Elder Brethren to divide the £7,000 granted annually under the Act of 1822 in any proportion they please?—It would be most desirable and advantageous that a system of pensioning off Acting Elder Brethren after a certain age should be adopted, and we would, I am sure, welcome any such suggestion or recommendation if put in a practical form. A deduction is made from the salaries of the Brethren through the ordinary form of fines, which could amount, if there was no attendance during the whole year, to £114. If you would like an individual instance, I can give you one, Sir?

4963. Oh, no; that is quite sufficient?—It rests entirely with the Elder Brethren to divide the £7,000 amongst themselves, but vouchers showing the appropriation are sent to the Board of Trade quarterly.

4964. The deduction from the salaries is by a regulation made by the Elder Brethren themselves?—By the Elder Brethren themselves, by court minute.

Absence on duty.

4965. In the statement of attendances of the Acting Elder Brethren at committee meetings, members of the committee are often described as being "absent on duty." Does this include duties outside of the statutory duties imposed on Trinity House as a Lighting Authority—*e.g.*, attendance as assessors in the Admiralty Court, duties in connection with the Pilotage and Estates Departments, and Corporation business generally? Do the Acting Elder Brethren receive any remuneration for such services?—Absence on duty includes any duty undertaken for the Corporation. If necessary, explanation of the absence is required, and an effort to attend a board or a committee is expected from every member. There are fees connected with the Admiralty Court, or wherever the Brethren may be summoned to attend as assessors in fulfilment of their corporate duties, and also for attendance at the Thames Conservancy by their representatives, which is a statutory obligation. The Pilotage and Estates work carries no fees beyond the ordinary salary of each Elder Brother.

Fees of, other than regular salary.

4966. Could you give us any idea of the amount of fees earned by attendance in the Admiralty Court of the Elder Brethren?—It varies, Sir; it averages at present about £150 to each Elder Brother; £1,500 a year, I think, in all.

4967. And for attendance at the meetings of the Thames Conservancy?—I believe it is only £60; I cannot give you that Sir. I understand it is £60.

4968. Is one Elder Brother appointed to attend the meetings of the Conservancy?—Two.

4969. The £100 would be divided between the two?—No, Sir; I believe it is £60 each. I have really never asked.

Daily attendance of, at Trinity House.

4970. What is involved in "daily attendance" at Trinity House?—Captain Clarke would be the best exponent of that, if you would allow him to answer. (*Captain Clarke.*) Do you mean the time, Sir, or in what way do you mean to put the question?

4971. Well, is it an important part of the duties of the Elder Brethren?—It is most important and necessary that some of the members shall be there every day—certainly the younger members. I may say that during the last 12 months I have seldom been away from the Trinity House, except on duty, and on Saturdays occasionally, and also the usual holidays allowed to the Elder Brethren during the year.

4972. Does that mean that you are in attendance at

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Trinity House from morning till evening?—I will put it from about quarter-past ten to half-past four or a quarter to five.

4973. And is your time generally occupied on business of the Corporation?—Every minute of it, but I am acting at present as Chairman of the Examining and Pilotage Committee, therefore a little more work is thrown on my shoulders, but broadly speaking, many of the Elder Brethren attend from half-past ten to four, and the time is occupied in its entirety throughout. (*Sir George Vyvyan.*) That is as far as Captain Clarke is concerned.

Observations on Statement of Mr. Norman Hill: As to New Works.

4974. Will you kindly furnish the Commission with your observation in detail upon the statement made by Mr. Norman Hill, in answer to Questions 1802 to 1834?—(*Mr. Owen.*) The first deals with new works; Question 1802. The amount of £50,000, stated in the evidence before Lord Courtney's Committee, to represent a fairly satisfactory expenditure annually on new works, was only approximate, and in no sense an estimate. The necessity might arise any year when from unforeseen circumstances a large expenditure would have to be incurred for the rebuilding or reconstruction of an important lighthouse, such as happened in the case of the Eddystone, Bishops Rock, Beachy Head, and Fastnet. As a matter of fact, however, of the £56,000 given as the average expenditure by the three Lighthouse Boards on new works for the five years ending March, 1899, the amount spent annually by the Trinity House during that period only averages £26,490, as against the amount of £25,000 stated in Lord Courtney's report as being a fairly satisfactory sum to spend in new works in England and Wales. The average expenditure on new works for the Trinity House in the six years ending March, 1905, was £42,286, which is accounted for by the fact that during this period the following heavy outlays were considered necessary: Beachy Head, £56,000; Portland, £13,000; Dungeness, £22,000; Penlee, £6,500; Pendeen, £16,700. It will be observed that the expenditure on Trinity House new works for the year ending March, 1906, only amounted to £16,074. Question 1808 deals with annual maintenance. The Trinity House expenditure for the year 1905 was £242,552, which shows an increase approximately of 11 per cent. only, as compared with the average cost of maintenance for the six years ending 31st March, 1899, to which Mr. Norman Hill refers. If, however, a comparison is made with the year 1906, the increase of maintenance is only about 3 per cent., as compared with the average for the six years ending March, 1899, the figures being £224,134 for 1906, as against £217,185 for the period ending March, 1899. In addition, it should be borne in mind that during the period 1899 to 1905 there were established five new shore lights, eight additional fog-signals, and twenty-three gas-lighted buoys, the annual cost of which, apart from any question of rise of prices, wages, etc., would go far to explain the increase of the percentage on maintenance to which Mr. Hill refers. Then in respect of steam vessel expenditure, the Trinity House have always considered that to carry out the duties of the light service efficiently and expeditiously, it is absolutely necessary to provide lighthouse tenders at salient points round the coast of England and Wales. These vessels, to be of any real service, must be properly equipped to deal with the special requirements of the service, such as shifting lightships and buoys, and lifting and dealing with their moorings, etc., also marking and removing wrecks. To do work of this nature by means of hired tugs would be impracticable, the vessels not being fitted for the purpose, whilst the officers and crews of such vessels could not be expected to have the special knowledge which is essential for dealing with floating seamarks. It should be borne in mind also that so far as the Trinity House is concerned, there are in position to-day 52 lightships and over 600 buoys, of which 40 are lighted. It may be stated that as regards the Trinity House steam vessels, the average annual expenditure during the six years ending 31st March, 1905, was approximately only £8,000 more than in the preceding six years. Upwards of £2,000 of this increase is due to the cost of upkeep of the steam vessel which was substituted late in 1897-8 for the old sailing tender "Mermaid," whilst £1,500 per annum is due to the increased cost of coal, and during the period in question the repairs required to the various steam vessels, both as respects their hulls and machinery, were considerably more extensive than in the previous period, resulting in an annual increase of nearly £4,000

As to steam-vessel expenditure.

It may be mentioned, however, that in 1905-6 the cost of repairs was about £2,000 less than the average of the six preceding years. Question 1832, head office expenses: It is incorrect and misleading to include either "Miscellaneous Expenses" or "Superannuations" under heading of "Cost of Administration." By far the larger portion of the charges under "Miscellaneous Expenses" relate to wreck removals and general service expenses, which can in no way be classed as an administration expenditure. So far as the Trinity House is concerned there has been no increase to speak of in head office expenses, the increase in superannuations is automatic, and due to the fact that more men in the service became entitled to their pensions by reason of age than there were reductions in the pension list owing to death. The expenditure under the head of "Miscellaneous" varies of necessity, and, as stated above, is chiefly due to wreck work. Question 1834, Superannuations: The reply to the strictures as to the largeness of the pension list is a very simple one—viz., that all pensions are regulated on the same scale as other public departments; also that no man is admitted to the covenanted service of the Trinity House without being certified by the Corporation's Medical Officer to be of "sound constitution and unimpaired health," and no pensions are granted to men under 60 years of age unless they are reported by the Medical Officer to be permanently incapacitated for performing their duty.

As to head office expenses.

As to superannuation expenses.

4975. Now, Captain Clarke, perhaps you would make a statement about the "Irene"?—(*Captain Clarke.*) Well, it is more about the steamers generally I should like to speak. During that time when the expenses of maintenance of steamers went up so considerably, it was due mainly to the fact that the "Siren," the "Stella," the "Argus," the "Irene," the "Ready," the "Warden," and the "Satellite" were completely gutted out fore and aft, and scaled and painted inside, which was a very considerable expenditure, and becomes necessary from time to time, and has to be done in order to keep the ships in a fit and proper condition. There remain only to be gutted and scaled and painted the "Triton" and the "Vestal," and they will be due to be done in about two years' time. Also, during that time the "Warden" had new decks and mast, the "Satellite" had new decks and masts, and the "Argus" had a new mast. The ships were put, during those few years, in a thoroughly efficient and proper condition, and should, under ordinary circumstances, require no work of that sort for many years to come. That is the main cause why the expenditure went up so much. Also I am right in saying that during that time the "Irene" had new boilers. Also, there was considerable expense owing to the "Triton" getting on shore, and to the "Irene" being in collision with the "Ovingdean Grange." Those matters increased the expenditure on the steamships.

Steam vessels Maintenance and repair of

4976. I notice that the expenses of the "Irene" for annual maintenance, including wages, coal and stores, and general maintenance, with repairs, amounted to a sum of £9,049 on a seven years' average. Comparing that sum with the corresponding figures for the "Vestal," you have for the "Vestal" an expenditure of £5,969. The "Irene" and the "Vestal" are vessels approximately the same size; in fact, the "Vestal" is slightly the larger vessel of the two?—Slightly.

4977. What are the circumstances which explain that very large difference?—During what years, Sir, are you quoting from?

4978. My figures are based upon an average of seven years ending 31 March, 1906?—I think the answer to that will be, firstly, the "Irene" is an older ship, and secondly, during that time she has had new boilers.

4979. You attribute the greater expense of maintaining the "Irene" entirely to the fact that she is an old vessel?—That she is a little older than the other, and has had new boilers.

4980. Requiring important repairs?—And has had new boilers. She is a more expensive ship to keep in order, and she is kept in better order than the other ship, because the "Irene" is used mainly for the inspection work, as against the "Vestal," which is not so often used for inspection work, and therefore is not kept, it is only right to say, in the condition that the "Irene" is kept. (*Sir George Vyvyan.*) Also the "Irene" will cost less in the future, I think, owing to using one boiler instead of two. (*Captain Clarke.*) We are now in the "Irene," and have been for some time past, only using one boiler, and

saving thereby a sum of something like £240 per annum in coal expenditure; that is when she is doing her ordinary work as a tender. I suppose it is known here that the "Irene," when she is not doing inspection work, is used exactly in the same way as any other tender in the service, and does the reliefs, carrying of coal, oil, stores, and all the rest of the work, just exactly in the same way as all other tenders do round the coast.

4981. Then your further answer is that the "Irene" is a somewhat more expensive vessel?—Yes.

4982. The great discrepancy in the figures arises from special repairs having been carried out during the last seven years?—Exactly, Sir.

4983. (*Admiral Henderson.*) In working out these expenses, I find that the average cost of the "Irene" is £2,927 a year, exclusive of new boilers, whereas that of the "Vestal" is £1,593, the former being nearly double the "Vestal," which means that the "Irene" costs fully double any other of the vessels enumerated in this return that we have here—that is the big vessels of the Northern and the Irish lights?—(*Captain Clarke.*) Of course, I have not got the figures before me, but I take it that they are correct, and the only explanation I have to give is that the "Irene" is kept in better order than our other ships for special purposes, and that she is a more expensive ship to keep up.

Head Office Expenses: Comparison of three Boards as to,

4984. (*Chairman.*) In the table which was handed in by Sir Thomas Blomefield, the head office expenses, exclusive of miscellaneous expenses, and exclusive of superannuation allowances, of the Trinity House, and of the other Lighthouse Authorities, are represented by the following percentages on the average total expenditure of seven years, apart from new works; Trinity House 9.3, Irish Lights 8.5, Northern Lights 9.9. Do you not consider, having regard to the much greater output of Trinity House, the much larger amount of their annual expenditure, that the proportion of the head office expenditure ought to be less than in the case of the other Authorities?—(*Sir George Vyvyan.*) That is your Question 10, Sir, I think.

4985. No, this is a question in connection with the question which I have already put. I understood Mr. Owen to complain that Mr. Hill had given a misleading impression by including in head office expenses, miscellaneous expenses and superannuation allowances?—(*Mr. Owen.*) Yes.

4986. I am now excluding those, and taking the head office expenses apart from them. The percentage figures for the three Lighthouse Authorities are 9.3 of the total expenditure of Trinity House, 8.5 of the total expenditure of Irish Lights, and 9.9 of the total expenditure of the Northern Lights, excluding expenditure on new works. My question, then, was directed to this point: The percentage expenses of the Trinity House and the Scottish Lights are about the same; those of the Irish Lights somewhat less, but might we not reasonably expect that the percentage in the case of the Trinity House should be the smallest of the three, having regard to the fact that their total expenditure is so much greater?—(*Mr. Owen.*) But the head office expenditure of the Trinity House includes the remuneration of the Elder Brethren, which does not appear in the other two Boards.

4987. Is not that an admission——?—You cannot get away from that fact.

4988. Is not that an admission that the system, including, as it does, the payment of seven thousand pounds a year to the Elder Brethren, is a more expensive one than the system of administration of the Scottish and the Irish Lights by unpaid Boards?—(*Sir George Vyvyan.*) Yes, I suppose you may take that. (*Mr. Owen.*) That is a matter of opinion; the question is, under which arrangement the work is done most efficiently.

4989. You would contend that there was a corresponding advantage in efficiency?—I should say that, certainly. (*Sir George Vyvyan.*) The work is much larger, much more comprehensive. Now, taking the Scottish Board, they have no lightships, or only one. That in itself involves a very great deal of office work.

4990. Yes, clearly the office work may be expected to increase with the general work of the Board; that is obvious; but ought it to increase in proportion?—I am not prepared to answer that. (*Mr. Owen.*) I should take it, the more work the Board has to perform, the larger must its official staff be.

4991. But not necessarily in proportion. In a manufacturing establishment it is generally held to be a very great advantage to double your output, because you do not at the same time double the amount of your head office expenses?—(*Sir George Vyvyan.*) The figures are 9.3, 8.5, and 9.9, I think you said.

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4992. I understand in a question put to you by another Commissioner this subject is specifically referred to; perhaps we had better leave it until we reach that question. I only put the question as arising out of my Question 8. Then I pass to Question 9. Do you consider that the expenditure on new works, including important alterations and improvements of existing lights, is likely to be greater or to be less in the future than in the past? Are there any expensive new works at present in contemplation by Trinity House?—On the whole, I am inclined to think that the expenditure on new works will be less in the future, the only large outlay that is at present contemplated by the Trinity House is that which would be involved in the improvement of the lights in the St. George's Channel and the approaches, this proposal including the Trevose, Hartland, St. Ann's, South Bishop, and Bardsey lights, etc., the estimated cost being about £20,000 approximately. This expenditure, however, will be spread over several years. I think you will remember that I made a similar reply to you on this subject at the conference with the Advisory Committee in the year 1903. It is also possible that we will have to provide a new vessel to replace the Argus, which is now nearly fifty years old. And I should like to add to that that since 1900, as I have already said, we have gone through a period of great improvements, involving such large figures as Beachy Head £56,000, Dungeness £21,000, Portland £13,000, Strumble Head £12,000, a new lightship £12,000, and a new steam vessel £15,500.

New Works: Decrease of future expenditure on, probable.

4993. Have you any suggestion to make as regards the provision of lights of local utility, outside the jurisdiction of any local Lighting Authority, and yet of little or no benefit to passing trade?—I think that seamarks of this nature might reasonably be considered a fair charge on the General Lighthouse Fund, more particularly as in such cases the expenditure in any particular instance would probably be quite inconsiderable.

Local lights: Provision of, by General Lighthouse Fund.

4994. You think that would be a fair and proper burden to place upon the General Lighthouse Fund?—As a rule, yes. Of course, I am dealing entirely with Trinity House, not with the Scottish and the Irish Boards, and each case will be considered on its merits.

4995. I pass now to the other paper of questions, and I will put them *seriatim*. What were the total number of communications respectively between the Board of Trade and Trinity House for the year 1905-6?—(*Mr. Owen.*) The number of official letters which passed between the Board of Trade and Trinity House during the year 1905-6 amounted to 890—viz., 396 inward and 494 outward. This is exclusive of communications and queries relating to accounts.

Number of communications between Board of Trade and Trinity House:

4996. When Mr. Matthews was giving evidence before us he was asked whether he would be prepared to furnish a report showing what economies might possibly be effected by establishing a single authority in place of the three existing Authorities. Is such a report forthcoming?—(*Sir George Vyvyan.*) No, Sir, this was a personal expression of opinion from the Engineer in his individual capacity, and Trinity House have not considered it necessary to send in a report.

4997. With reference to Questions 3395 to 3406, can you give any further answers or explanations?—(*Mr. Owen.*) The matters referred to herein have been dealt with generally in replying to Question 8, referring to Mr. Norman Hill's evidence, but the replies to certain specific questions are as follows:—Q. 3398. If we examine closely the component parts of the total outlay on steamers, we find that the causes which led to a sudden increase of about £11,000 in the year ending 31st March, 1901, were to some extent of a permanent nature, and that these causes, taken in conjunction with factors of more recent growth, have during the past six years maintained the expenditure under this head at a considerably higher level than the average of the six years ending March, 1899. Repairs, owing mainly to the increasing age of the vessels, have cost about £4,000 a year more since 1899. Coal, owing to the increase in price which set in in 1900, accounts for about £1,600 a year extra; whilst the addition of a steam vessel in 1897-8, the full effect of which was not felt at first, is responsible for a permanent increase of about £2,000 a year. Wages also show an increase

Expenditure of Trinity House: Explanation of various items.

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of about £1,400, owing to the appointment of certain additional officers and engine-room hands, and to the fact that one superintendent is now charged to Steamers instead of District Storehouses. Then Question 3402. Up to the year 1905-6 the cost of maintenance of the Blackwall workshops was included under the head of District Storehouses; but in that year, at the request of the Board of Trade, this expense, which amounted to £4,364, was distributed over the various heads of service.

4998. Up to that date under the heading of Storehouses all the expenses of Blackwall were included?—Yes. Then Question 3403. The fluctuations in the amount expended on maintaining the lightships depends entirely on the number requiring to be brought in for repair, the extent of the repairs found to be necessary; also the outlay on chain cables varies considerably year by year. Question 3404. The answer to that is, this would not be practicable. I think that was in regard to bringing the vessels in more regularly, Sir.

4999. You have to see that the vessels are repaired when they need repair?—(*Captain Clarke.*) Some come in every three years, being iron ships; some come in every seven years, being wood or composite ships; and it would be practically impossible to bring them in so as to level the expenditure over the various years, because they must come in when their time becomes due. It would be difficult to arrange the time so that a certain number of iron ships in one year, and a certain number of wood ships in another year should come in; and it would result, broadly speaking, in no saving of expense to the General Lighthouse Fund. It might be necessary then, in order to keep the money equally divided between the ships, to bring the ships in when they did not require overhaul.

5000. There is a sufficient balance in the Lighthouse Fund to cover any inequalities of that kind?—Yes; and it is the most economical way of doing the work only to bring in a ship when it requires to come in. (*Sir George Vyvyan.*) Is there any disadvantage in the expenses varying a little year by year? (*Mr. Owen.*) Question 3045. There were not so many new buoys required for the Trinity House Service in 1905-6. Hence the reduced expenditure. A new scale of pay came into force during the year 1902-3, the staff being reduced and the hours increased. Question 3406. The drop in "Miscellaneous Expenses" in 1906 is almost entirely attributable to there being less wrecks to deal with in that year.

5001. I have now to put some questions arising from the returns which have been put in. First of all, Schedule A 9, Reliefs for Rock Stations (Ref. Q. 3386, *et seq.*). Could not the contract system of relief be applied more generally? Are these items debited to individual lighthouses?—The contract system of relief could be applied more generally, but as steam tenders are necessarily attached to the different districts for the purpose of buoy and wreck work, relieving light vessels, etc., they are, with a view to economy, utilised as far as possible for the relief of rock and pile lighthouses. (*Captain Clarke.*) I have here a list of the rock lights that are relieved by contract and are relieved by our own steamers, and if that is examined it will be found that in every case where the work can be done by contract, we having no steamer within a reasonable distance, it is done, and it is only in the places where it would be very expensive to get it done by tug or by shore boat that we do it ourselves, and only in such places that are, broadly speaking, *en route* to a lightship, or to some other station which must necessarily be done by the steamer.

Relief of Rock Stations.

5002. You consider carefully in every case which would be the most economical plan?—Yes; and we have altered the arrangements from time to time as necessity has arisen. It must also be borne in mind that our steamers are at their station always with steam up, and ready to do this or any urgent work, and we have always found it cheaper to do the reliefs at those places which you will find on the list; it is cheaper to do it by our own steamers than by contract from the shore, wherever it is possible.

Accounts of seamarks maintained by Trinity House for other Public Departments.

5003. Schedule A 16. In the accounts for the year ended 31st March, 1906, does the total sum for maintenance of lighthouses—namely, £45,342—include the cost in Return A 16, of seamarks maintained for other Public Departments? The amount is £5,234?—(*Mr. Owen.*) The cost shown in Return No. 16 of maintaining various seamarks for other Public Departments, for which the Trinity House receive an annual sum of £5,234, is included in the estimates under Abstract A, B, or C, as the case may be. That is lighthouses, lightvessels, buoys and beacons. The amounts received in repayment are shown as credits in the appropriate abstract of account. The cost of buoys and beacons maintained for other authorities is shown in Section 3 of the estimates—*i.e.*, Abstract C.

Pistons:

5004. Schedule B.10 (2): Where were the new pistons made, and how charged?—These pistons were purchased in the rough from an outside firm and finished at the Trinity House workshops, and they would be charged to the station for which they were required. I believe in this instance it was the Carnarvon Bay lightship.

Incandescent Burners: Cause of difference in cost of, in England and Scotland.

5005. Estimates of 1905-6, Abstract A.7: Conversion of incandescent burners. This item cost the Northern Lighthouse Board £100 in each case. Is there any explanation of the £275 each?—The difference in the cost of these burners in the Trinity House and Scotch services respectively is due to the fact that, in the Trinity House service the whole of the apparatus, including the air and oil receivers, valves, supply pipes, etc., is duplicated, which the Elder Brethren consider a necessary and desirable precaution, while opportunity is taken, when fitting the incandescent system, to overhaul and effect any necessary repairs to the revolving machinery, the cost of which is charged at the same time to the station. Even with this duplication and other work, the actual difference between the cost of establishing the incandescent oil light in England and Scotland is not really always so great, the average expediture per station for this purpose at six English lighthouse stations, where the system was recently adopted, being £195 only. (*Sir George Vyvyan.*) I should like to add to that, Sir, with your permission, that when these various methods were placed before the Canadians, who wished to introduce the incandescent burner, they preferred ours, although it was slightly more expensive, on account of the duplication.

5006. For the sake of the greater security gained thereby?—The Canadians have adopted our Trinity House arrangement in preference to either the Scottish or the Irish.

Estimates, 1905-6; Explanation of points arising from,

5007. Estimates 1905-6. Abstract A, Ordinary Repairs and Incidentals: What are the details of those items, and why should those of Trinity House so much exceed those of the other two General Lighthouse Authorities?—(*Mr. Owen.*) Under the headings of "Ordinary Repairs and Incidentals" is included the whole cost of upkeep, except wages and consumable stores, for all stations in the service, averaging about £70 per station for repairs and £30 for incidents. As we have no particulars of the details of expenditure comprised in the Scotch and Irish services under these headings it is not possible to make a comparison.

5008. Estimates of 1905-6: Where is the credit for removing wrecks shown?—The difference between the estimated and the actual cost of removing wrecks was not drawn upon, the saving being £4,850.

5009. The same estimates; where is the charge for temporary draughtsmen shown?—Any charge for a temporary draughtsman would be shown under the head of Abstract F.

5010. The same estimates, Abstract G: What is the Education Grant for?—The payment termed "Education Grant" is an annual allowance at the rate of £6 10s. per child made to keepers at certain isolated shore stations to assist them in defraying the cost of boarding out their children with their relatives or friends, or in the nearest town or village where there is a school. They have the same practice in the Scottish service. (*Sir George Vyvyan.*) Exactly; we adopted it from Scotland.

5011. Where is the cost of the Gibraltar light shown under maintenance?—(*Mr. Owen.*) The cost of maintaining Gibraltar light is included in Abstract A with that of all other lighthouses under the jurisdiction of the Trinity House.

Expenditure:

5012. I think you have a copy of the tables put in by Sir Thomas Blomefield?—Yes, Sir.

5013. If you will kindly look at Table A, perhaps you will tell us what is the explanation of the greater cost of Trinity House in respect of (*a*) light-

Explanation of points arising from Sir T. Blomefield's Tables.

houses, (*b*) buoys and beacons, (*c*) district storehouses, (*d*) head office, (*e*) miscellaneous expenses, as compared with the other General Lighthouse Authorities?—Well, Sir, in respect of (*a*) we have no opportunity of analysing the cost of upkeep of Scotch and Irish lighthouses, and it would be difficult to ascertain the cause of the apparent excess of cost. These figures of Sir Thomas Blomefield are prepared at the Board of Trade, and we have not seen them, other than what you have sent us. Then as respects (*b*) buoys and beacons, the extra cost is doubtless due to the greater number which the Trinity House maintain, the proportion being at least three to one. (*c*) The same remark applies to district storehouses, of which the Trinity House has nine. (*d*) Head office, the expenditure under this heading is made up as follows:—Elder Brethren, £7,000; Official Establishment (clerical), £6,400; Official Establishment (Engineer), £4,000; Scientific Adviser, Surveyor of Shipping, messengers, and others officers, £1,200; stationery and printing (for the entire service) £1,000. The general duties appertaining to the Trinity House as a General Lighthouse Authority are of much wider scope than those of the other two Boards, and consequently necessitate a larger staff at headquarters.

5014. Do the three Lighthouse Authorities ever compare their expenditure under different heads, in order to see whether one is not carrying on the work more economically than another? Would not such a comparison be useful to them?—I do not think that is the practice, Sir. You see, with the three Boards, each individual Board is responsible to the Board of Trade for its expenditure; and certainly that has not been the practice. (*Sir George Vyvyan.*) In all our consultations with the other Boards we have not done that, Sir. I do not think they would like it; at any rate, it has never been contemplated. It would be very difficult to carry out.

5015. Then I am afraid it will fall to the Commissioners themselves to make these comparisons in the best way that they may, and it would help us, I think, if you were to inform us of the number of the staff employed at your lighthouses?—Yes, Sir.

5016. Could you tell us that off-hand?—(*Mr. Owen.*) That is given at each lighthouse.

5017. And the total number?—That is given in the return that we sent to you. (*Sir George Vyvyan.*) I believe our number of keepers does not vary; they are very much the same in the three Boards. We have conference whenever necessary. We are going to have one very soon, but not on the matter of expense; I do not know why we should not; I do not know whether it would be possible.

5018. Another table was put in by Sir Thomas Blomefield with respect to lighthouses——?—(*Mr. Owen.*) Miscellaneous expenses, Sir.

5019. No, with respect to lighthouses, about which I should like to ask a question. The total number of Trinity House lighthouses is given as 96, including a certain number of double stations. What are double stations?—Where there are two lights and two cottages; a double establishment.

5020. A double establishment?—Such as Nash and St. Ann's; the others have been done away with.

5021. It is stated, for instance, that there are five lighthouses under Trinity House with a staff of five, but that one of these is a double station; does it mean that at the double station ten men are employed?—(*Captain Clarke.*) No, Sir.

5022. It does not?—No, Sir; no such thing. (*Mr. Owen.*) Those five stations include the four electric light stations. The stations where there are five men must be the electric stations, Souter Point, St. Catherine's, South Foreland, and the Lizard, and the double stations.

5023. Is it not rather a strange thing to treat a double station as if it were two lighthouses?—(*Captain Clarke.*) It is two lighthouses; at the Nash and St. Ann's there are two distinct lighthouses.

5024. Oh, I see, there are two distinct lighthouses; each of those lighthouses has got a staff?—Yes; of course the principal keeper being in charge of the whole station; but at the Nash there would be four keepers; at St. Ann's there are five keepers, because there are two distinct lighthouses and a fog-signal at some distance from them.

5025. At the Nash there would be two distinct lighthouses, with two keepers in each?—In each set of cottages, all subject to the head keeper, who exercises a general supervision.

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Lighthouses: Number under Trinity House.

5026. (*Admiral Henderson.*) I think that the Board of Trade return as to the number of lighthouses is incorrect. According to Mr. Owen's evidence he gives the number of lighthouses under the control of the Trinity House in the United Kingdom as 71. I think the Board of Trade have added in all the foreign lighthouses. I have tried to get to the bottom of it, as to what is the number of lighthouses actually charged to the expenses?—(*Mr. Owen.*) There are twelve unwatched lights. Perhaps the Board of Trade have included those.

5027. They are included with the others under the same heading, in the Scotch and Irish Boards—the unwatched lights?—They are.

5028. (*Chairman.*) I notice a discrepancy between this table and the evidence given by Mr. Owen. It was in answer to Question 302, Mr. Owen gives the number of Trinity House lighthouses as 71, with resident keepers, 12 unwatched, and two separate fog-signal stations?—Yes.

5029. That makes 85 altogether?—You may take it that is correct, Sir. (*Sir George Vyvyan.*) I am not sure that it is not 70.

5030. (*Admiral Henderson.*) It has been very difficult indeed to get at the actual numbers of the lights; I have tried to check them all the way round, both by the maps and otherwise, and I make it 71?—(*Captain Clarke.*) I think you are probably right.

5031. And this return that is sent in by the Board of Trade gives 96, but it includes in the return the whole of the unwatched lights under all three Boards.

5032. (*Chairman.*) There is certainly a discrepancy in the number given by Mr. Owen, and the number given in this table?—70 is correct. (*Sir George Vyvyan.*) We will test those for you, Sir; I think it is very unlikely that we should be wrong. (*Mr. Owen.*) We are quite prepared to stand by our figures.

5033. That is the number that is maintained under the heading of maintenance of lighthouses?—Yes.

5034. (*Admiral Henderson.*) That is what we want to get at; what is the number maintained as a charge on lighthouse maintenance?—We will have it checked and sent in.*

5035. (*Chairman.*) Perhaps you might inform us at the same time of the total number of men employed in the lighthouse work?—(*Mr. Owen.*) You have that all in the estimates; the total number, and how many at each station.

5036. There is one other question?—(*Mr. Owen.*) Yes, about miscellaneous expenses.

5037. Have you dealt with miscellaneous expenses?—That is drawing a comparison as to the large expenses as compared with the other two Boards. Here again the difficulty arises in making any comparison without the details in each case being available. It may, however, be observed that in the Trinity House the cost of removal of wrecks (averaging about £6,000 per annum) is included under this heading. I think the expenditure by the other two Boards for removal of wrecks is practically nil, Sir.

5038. Is very small?—(*Captain Clarke.*) Yes.

Submarine bell fog-signals: Correspondence as to, with Zeeland Steamship Company.

5039. Have you any observations to make regarding an article that appeared in the "Shipping Gazette" on the 1st of January of this year, with reference to the Zeeland Company's correspondence with the Trinity House?—(*Sir George Vyvyan.*) The offer of the Zeeland Steamship Company, as conveyed in their letter to the Trinity House, of 29th August, 1906, was "To instal an apparatus for submarine signalling on board the Tongue lightvessel free of cost, and to bear all expense for managing the apparatus until you decide to take over the apparatus, or till the same has been removed." The reply of the Trinity House was that "The Elder Brethren regret that as matters at present stand, they are unable to avail themselves of it." It should be borne in mind that the Trinity House had made experiments with this apparatus at the North

* *See* Appendix B, VI.

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Goodwin lightvessel in August, 1905, and as a result they provided in their estimates for the year 1906-7 the sum of £1,000 for the purpose of fitting submarine bells on two or three of their lightvessels. When their estimates came up for discussion before the Advisory Committee of Shipowners in January, 1906, this proposed expenditure met with such strong opposition on the part of the shipowners' representatives that the item was withdrawn from the estimates. In these circumstances the Elder Brethren felt they were compelled to decline the offer of the Zeeland Company because, in view of the favourable results which they themselves had obtained with this invention when experimenting with it at the North Goodwin lightvessel in August, 1905, they felt assured that if the invention were once installed at the Tongue it would have to remain, and they, as the General Lighthouse Authority, would have been thereby committed to the necessary expenditure involved, a responsibility which they were not at that moment in a position to accept. It may be added that in the estimates for the current year the Trinity House have again made provision for fitting submarine bells at certain of their stations, but, owing to the attitude of the Advisory Committee of Shipowners at the last conference in January of this year, the proposal has not yet been sanctioned, and is still under the consideration of the Board of Trade.

Elder Brethren: Time spent in serving on each Committee.

5040. Now, Sir George, I propose to pass to your own *précis* of evidence, and to take you through the different heads of it *seriatim*. As regards the constitution of the Trinity House and the duties of Committees, we have already had a very full account from the Secretary. I do not know if you wish to add anything to that account?—As you say, Sir, you have had it nearly all from the Secretary. I have just this addition. The time that each Elder Brother remains in the Lights and Examining Committees, supposing no vacancy occurs, is eight years, two of which are spent as chairman, but of recent years deaths and elections have interfered with this arrangement. For instance, I have been six years in the Examining Committee, nine and a half years in the Lights Committee.

Ages of,

5041. Then, as respects the ages of the Elder Brethren?—There is one over 70; between 60 and 70, two; 50 and 60, five; 40 and 50, there are four.

5042. That is twelve?—It varies very much at times. At present there is one very old member, Admiral Sir Leopold M'Clintock, aged about 87, not included in the above; his attendance and duties are merely nominal, and he cannot be said to take any part either in the deliberations of the Board or in the conduct of affairs, though he is represented as belonging to the Committee of Wardens. The average age of the twelve Brethren on the active list is 55 years, one of whom is a Rear-Admiral in the Royal Navy, and the others are all retired masters in the Merchant Service.

5043. Sir Leopold M'Clintock practically performs no duties; you really regard him, to all intents and purposes, as pensioned?—He draws his salary, minus his fines.

Election of,

5044. Then as regards election?—They are all elected by co-option from the list of the Younger Brethren, and to be qualified they must have commanded a ship for at least four years in the Merchant Service or three in the Royal Navy. There is no difference made as to the ports from which the candidates have sailed, Southampton, Newcastle, Liverpool, and London being all represented. I honestly believe that the chief desire in the minds of the Elder Brethren is to get the best man, and it is very natural, as we have to be companions for life.

5045. Just one question with regard to that. You say there is no difference made as to the ports from which candidates have sailed, Southampton, Newcastle, Liverpool, and London being all represented. Do you make any endeavour to secure that the Elder Brethren shall be representative of the different ports?—No, Sir, I cannot say that we do; we do not write to the ports, if that is what you mean.

5046. No, I did not mean that. In co-opting—I do not know exactly the process by which the co-option takes place—but in co-opting would you consider, as between two candidates whose claims you regarded as in other respects equal, that it was an advantage in favour of one, as against the other, that he came from a port not so well represented upon the Board?—Distinctly, yes; and not only ports, but trades. In the event of a vacancy occurring, the practice is, if it can be arranged, that the new member should join the Examining Committee, where he will have an opportunity of gaining experience in what we call the examining work, which has been described to you. This is occasionally very arduous work. I have been myself on my legs for fourteen hours, with the usual interval for meals. And it is advantageous that the younger members should belong to it, for the experience gained is of great value to the recipient in connection with the other matters which he will be called upon to deal with, and which will come before him in other Committees or at the Board. It is not, however, always possible to carry this arrangement out, and at the present time the two youngest members of the Board are on the Lights Committee owing to the number of vacancies which have occurred recently, *i.e.*, there have been five elections since and including 1900, but in the eight elections which have occurred since I have been Deputy-Master, five went straight into the Examining Committee. Practically no Elder Brother is now elected who is over 50. It is an unwritten law that we do not elect Brethren who are over 50. It has become practically the rule that of the thirteen members two should belong to the Royal Navy, but it has never been laid down, and it is within the right of any member of the Board to vote for any Younger Brother, regardless of the nature of his service.

5047. Would you describe to us the method of election?—Yes, Sir.

5048. Unless you have any objection?—No, Sir, I have no objection whatever. It is handed down from a very long time. There is a list of the Younger Brethren placed on the table, and each Elder Brother, beginning with the junior, makes three ticks or scratches, as we call them—the old term—three ticks against three Younger Brethren. No two ticks must be made against one Younger Brother, so that each Elder Brother has to tick for three Younger Brethren. The three getting the largest number of ticks go into the ballot box, and are balloted for, and the one receiving the greatest number of affirmative balls, always provided that is a majority of those present, is elected an Elder Brother. We arrange that there is a second ballot if necessary, so that the Younger Brother elected always receives a majority of balls.

5048a. Before you go to the ballot, is there any open discussion of the merits of the different candidates?—Yes. They are interviewed; we talk amongst ourselves; we write about them; we make every inquiry; and we take every conceivable method to find out whether we have got the best man, quite irrespective of anything else.

5049. I may take it that a great deal of trouble is taken in connection with the election of every Elder Brother?—A great deal of trouble; that is the reason that we delay the election as long as we can, in order that we may take every opportunity of finding out, because it is only then that we begin to discuss them. The fact of their being a Younger Brother does not involve any great research into their past history.

5050. The ballot is only the culmination of a really careful consideration of the whole matter in all its aspects?—Yes, we discuss it amongst ourselves; not officially, of course. Of course, we see something of them before they become candidates—what we call candidates. We have many opportunities. They dine with us once a year, those who are at home, and we encourage correspondence with them. There are about 200 of them; their qualification is not defined; they come from all parts of the United Kingdom. I believe you have a return of their names and their occupations.

5051. We have. The time of service which must elapse before a Younger Brother is eligible to become an Elder Brother is not laid down?—No, Sir, I was eighteen months a Younger Brother. Some of them have been four years, and some of them longer. I do not know whether you want to hear anything about the pilotage work; whether you consider that is outside?

Pilotage duties of,

5052. I hardly think the work of the Pilotage department comes within this Inquiry, except in so far as the work done on the Pilotage Committee might conceivably interfere with your work as a Lighting Authority. You do not think that is practically the case?—Interfere with the work?

5053. Yes?—It is their own Committee.

5054. The time of the Elder Brethren which is taken up with the pilotage duties is not such as to

interfere with the efficient performance of their duties as a Lighthouse Authority?—Oh, no; on the contrary, it is an advantage.

5054. (*Admiral Henderson.*) How is the expense of the Pilotage Committee met?—By the Pilotage Commiteee itself.

5055. Is any portion of the Head Office expenses used for the Pilotage Committee?—(*Mr. Owen.*) Oh, no.

5056. They have a separate staff entirely?—It is a distinct department entirely.

5057. (*Chairman.*) Except so far as the services of the Elder Brethren themselves are concerned?—Yes, it is to the great advantage of the Elder Brethren in their lighthouse work.

5058. I think you might just tell us what you have to say with regard to the outport pilotage districts?—(*Captain Clarke.*) The outport pilotage districts are also worked by the Elder Brethren of the Trinity House, who meet once a week, on Fridays, for about an hour and a half, or perhaps two hours, to deal with the outport work.

5059. How many outport districts are there?—Thirty-four outports; the names I have here before me.

5060. They are administered by Sub-Commissioners of the port?—They are administered by Sub-Commissioners of the port. At each of those ports there are Sub-Commissioners, not under three and not exceeding five. Their emoluments are the sums paid by the pilots for examination for pilotage and re-examination.

5061. And so far as these outport districts are concerned, the administration of Trinity House is practically confined to considering the reports of Sub-Commissioners?—Practically.

5062. And dealing with any questions raised?—Occasionally we go down to those outports when anything special arises, which is not often.

5063. (*Admiral Henderson.*) The examinations are held locally?—Locally, yes. We have, on special occasions, gone down to examine the pilots, when there has been some doubt as to the efficiency of the pilots, but that only occurs once in many years.

Services afloat,

5064. (*Chairman.*) With regard to the services afloat and Committees away from London?—(*Sir George Vyvyan.*) Except in Special Committees, the practice is for two Brethren to be away together, and it is generally of advantage, except on pilotage questions, that each Committee should be represented, and when on pilotage duties the Committee is frequently accompanied by a clerk.

5065. From what source would that clerk be paid?—He is a pilotage clerk. On special occasions, such as fog-signal experiments and special inspections, this rule does not apply. I frequently preside myself, and it is occasionally found expendient that as many members as can be spared should have an opportunity of seeing or hearing what is being tried, not necessarily as members of the Committee, but in order that their experience may be matured. I may say we have just come up last Friday from an examination of experiments off St. Catherine's. The Scottish Board were prevented from being represented; the Irish Commissioners and the Board of Trade were both represented. Last year I presided at several Committees afloat, visiting various works in the Bristol and English Channels, and to report on the alleged deficiency in sea area of the fog-signals on Lundy Island in connection with the loss of the "Montagu," a copy of which I believe you have had sent to you, and in connection with fog-signals generally, and submarine bells in particular. I took out from my diary, to give you an idea, the number of days one is away on duty, and I find before I became Deputy-Master the average of the year was 46 days in the year I was away on duty; I was so chiefly at inspections, and I have no doubt Captain Clarke has been more than that.

nd nspection duties of,

5066. The ordinary work of inspection is carried out partly by the Examining Committee and partly by the Lights Committee, but I understand the work of inspection is generally carried out by at least two Elder Brethren, one belonging to the Examining Committee and the other belonging to the Lights Committee?—The Lights Committee is always two on these occasions; very, very rarely, an unimportant Committee may be composed of one, but I always set my face against it as far as I can, and it is hardly ever the case.

5067. A question arose in the course of the evidence given by Captain Frederick, if you will refer to Questions 4245 to 4247. "4245. (*Mr. Ennis.*) Do you know that a Committee of the Irish Lights Board has been about a month afloat each year doing similar work?—(*A.*) I do not know how long, but they always spend a certain amount of time afloat visiting the lights; but in the case of the Trinity House they do more than that, you see. 4246. (*Admiral Henderson.*) But is not that a supererogatory duty, the fact of the Elder Brethren of the Trinity House actually fixing the position of a buoy; you cannot rely on the position of a buoy fixed once a year, it must be done continually and constantly, and it must be verified after every gale of wind?—(*A.*) Oh, I think they are constantly going out, the Elder Brethren of the Trinity House. 4247. I do not think that is the evidence we have had, it is only done when they make their annual inspection by the Elder Brethren?—(*A.*) Oh, I do not think that could have been given in evidence, but I should not have agreed with it if I had heard it"?—(*Sir George Vyvyan.*) If that means that we only go out for our annual inspections it is quite wrong. Do you take it as meaning that? That answer has not been brought to my notice.

5068. I wished to know what the exact facts were. Are these buoys fixed by the Committee of the Trinity House once in every two years?—(*Captain Clarke.*) Once in every two years the position of every buoy round the coast is checked personally by the Elder Brethren.

5069. And that work is not carried out at what is known as the annual inspection?—No.

5070. The annual inspection is something quite different?—Quite distinct, and not only that, but the buoys are checked and supervised by the superintendents of the respective districts, and also by the masters of the ships in their usual runs.

5071. That raises a question to which I just wish to call your attention. The Northern Lights are contented with the supervision exercised over the position of buoys by the officers of their steam vessels. The Irish Lights, in addition to the supervision of the officers of the steam vessels, have the buoys inspected by an inspector. I take it that the work of the inspector corresponds to the work of the Elder Brethren of the Trinity House?—Broadly speaking, yes.

5072. But Elder Brethren of the Trinity House impose the responsibility of seeing that the buoys are in their proper position not only upon the masters of their steam vessels, but also upon the superintendents of the different districts?—(*Sir George Vyvyan.*) Yes, Sir.

5073. And then, in addition to that, there is an inspection carried out by the Elder Brethren themselves once every two years?—Yes, there are two sorts of annual inspections; one is done by the Examining Committee.

5074. Do you think that this triplication of the work of inspection is necessary for the efficient maintaining of the buoys in position?—(*Captain Clarke.*) It is a great deal more than an inspection to ascertain if the buoys are in their places; it is a survey of the sands to see that the buoys are in the best situations, the soundings being carried from buoy to buoy and from buoy to sand, and it is only by such inspections—whether they are carried out by the officers of the steamers, which cannot be a very exhaustive one, or by the Elder Brethren, which is an exhaustive one—that the buoys are placed in the best positions to guard the danger.

5075. You do not think that if you were to content yourself with the amount of supervision exercised by the Northern Lights and the Irish Lights the work could be satisfactorily done as regards the coasts of England and Wales?—(*Captain Clarke.*) No; we certainly do not. We have outlying sands where it is impossible to get marks and angles for the buoys, and what the Elder Brethren do in their two years' examination is not only to check the position of the buoys, but to check it having regard to the configuration of the sand and to find whether the sand has grown out or not, and to move the buoys or direct their

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removal, so as to guard that sand, and to acquaint the Admiralty with the fact that the sand is altering.

5076. (*Admiral Henderson.*) Do you think that really is more necessary in the case of the coasts of England and Wales than in regard to the coasts of Ireland and Scotland?—Particularly so, having regard to the outlying dangers on our coasts. (*Sir George Vyvyan.*) There is so much more traffic. (*Captain Clarke.*) It is right to say the superintendents and our masters check the positions of all buoys; when they pass in their usual routine they see that the buoys are in the proper positions, but they do not do that exhaustive checking and determining of the exact position of the buoys that we do when we are away on those inspections.

5077. Not even the superintendents?—Not even the superintendents, unless a superintendent is directed to do so in some particular case or cases.

5078. I notice in looking through the logs that the tenders are constantly taking soundings and taking the positions of buoys?—When directed.

5079. And also individual lightvessels. They constantly report in their logs that they find a lightvessel $3\frac{3}{4}$ cables out, and therefore one presumes the masters of those tenders are, as they should be, perfectly capable of making reports to Trinity House as to any increase of a shoal, or any alteration of a channel, or any discrepancy which they may find?—I would be sorry to say that they are not, but I do maintain that supervision—particularly in lighthouse work and over floating seamarks marking outlying dangers—is absolutely essential and necessary. Having regard to the coasts of Wales and England, no amount of superintendence is too great, in our opinion. And may I add, that, when occasion occurs, the two inspections have been conducted together with a view to saving money—that is to say, the general inspection of the lighthouse establishments and the checking of the positions of the buoys have been carried out simultaneously with a view to saving expenditure, but it is not advisable, and sometimes it is not possible, to do that, particularly in districts where we have a large number of floating seamarks.

Board of Trade: Control of, over Trinity House.

5080. (*Chairman.*) Passing from that subject to the connection between the Trinity House and the Board of Trade, have you any observations to make?—(*Sir George Vyvyan.*) Under the powers given them by the Merchant Shipping Act, 1894, the Board of Trade exercise a very strict control in matters of finance not only as respects new works, but also in regard to the general upkeep of the service. All expenditure for salaries, wages, or allowances is strictly in accordance with rates which have been previously sanctioned, and no departure therefrom is permitted without previous sanction. Again, full particulars of all expenditure required for repairs in any branch of the service has to be submitted for sanction before being put in hand, whilst at the termination of each quarter a detailed account of all disbursements for the various heads of the service, with the necessary vouchers, is transmitted to the Board of Trade, who, after examination, pass them on to the Department of the Comptroller and Auditor-General. The Board of Trade have always fully recognised that, notwithstanding this financial control, the responsibility for the efficient management of the service generally is not within their province, but rests entirely with the General Lighthouse Authority under the terms of the Merchant Shipping Act of 1894, and on these recognised lines the result has been for many years past (so far as the Trinity House is concerned) a cordial co-operation between the two Departments for the good of the service generally.

Control of Trinity House over Scottish and Irish Boards:

5081. Will you go on to the connection with the Scotch and Irish Boards?—I think it may be said that the existing arrangement, as provided by Statute, has been found to have its advantages, particularly in view of the fact that in the composition of the Scotch and Irish Boards the nautical element is almost, if not entirely, absent; and although cases have occurred occasionally in which the Trinity House and one or other of the two Boards have been in direct conflict, it has much more frequently happened that either the Trinity House has been able to accord its sanction to the proposals as first put forward or that, as the result of correspondence or consultation, very material modifications in the original proposals have been agreed to.

5082. In examining any scheme which is submitted to Trinity House for sanction by the Irish Lights or by the Northern Lights does the Trinity House take into account only general considerations, such, for instance, as the necessity for the light or the character of the light, or does it go into the details of the proposed scheme?—(*Captain Clarke.*) The details of the scheme are laid before the Trinity House when considered necessary, Sir.

5083. They would not be laid before the Trinity House as a matter of course, but only if the Trinity House asks for them?—Yes; in some cases it is not necessary to go into the details.

5084. Is the Trinity House in the habit of asking for them?—Yes, we are in the habit of asking for details. (*Sir George Vyvyan.*) We should not give statutory sanction unless we were satisfied.

5085. Has the practice of asking for details always obtained?—(*Sir George Vyvyan.*) No.

5086. I notice that Mr. Scott, when asked (3092) "In what light do you regard the control of the Trinity House and the Board of Trade? Do you find that it gives you very much extra work; do you think that it goes into too minute details"? replies: "Well, I think that the old arrangement, when the Trinity House did not bother about our methods of doing work, but simply had to sanction characters of lights, was better than the present arrangement, in which they go into details"?—I am afraid we found, Sir, it was absolutely necessary to go into details more than we had been doing. Circumstances arose which I need not detail here, and we found that it was only by going into details that things were discovered.

5087. I am afraid, Sir George, that I must press this question, because it is really of some importance. If there were reasons of that kind I think you ought to state them?—Well, it was a question, it came out incidentally, in which a steamer was involved, of which we had not been informed, and it became a a matter of augmentation of expense or an explanation of expense, and from that time I think we have been more particular. I may say that it is a very difficult matter to determine how far the Trinity House has to go into the matter of finance. It is impossible to avoid it; it would not be right to avoid it; but we never go into the question of finance, except as to whether the expenditure is necessary or ought to be spent.

5088. You mean that the amount which is proposed to be spent is an essential element in considering whether the expense should be made at all or not?—There was a time years ago when the question of finance was never considered by the Trinity House.

5089. And in reporting to the Board of Trade you would, I suppose, deal separately with the question of the method of carrying out the proposed new work, and with the necessity of some new work, apart from the method of carrying it out?—Yes; and we sometimes propose an alternative scheme.

5090. You think it is desirable that you should be placed in a position to criticise, not merely the necessity of the work, the character of the light, and so forth, but also the details of expenditure?—It must be done by somebody.

5091. You think it is an advantage that you should be placed in a position to examine details of the expenditure before reporting to the Board of Trade?—Yes, otherwise the Board of Trade would have to do it themselves.

5092. Are you clearly of opinion that some superior authority among the three Lighthouse Authorities is desirable, that one should be made superior to the others and have supervision over them?—I think that our nautical element gives us a distinct advantage, of which the Board of Trade are very glad to avail themselves.

5093. Whenever it is proposed to put up a new seamark, it may be of essential importance that the character of the mark should be considered in relation to the whole lighting of the coast; is that so?—It is so. There is very often a large scheme presented to us, of which the particular light forms a part.

5094. And that, I suppose, is the principal reason why you think one supervising authority is necessary, or, at all events, desirable, even apart from the supervision which might be exercised by the Board of Trade?—Yes, Sir, I think so. I am not very strong upon it. If, for instance, there was a strong nautical element on the Scottish Board, I think it would

relieve us of the supervision, which we are not very fond of, and it is done more for the benefit of the Board of Trade than our own, and certainly creates a certain amount of jealousy. But there being no nautical men on the Scottish Board, I think makes it necessary.

France: Difficulty of comparing Lighthouse Administration of, with that of England.

5095. Will you please pass to the next head: the comparison between France and England with respect to the lighting of their coasts?—The comparison between the two countries was gone into at some length by the Courtney Committee in the examination of Mr. Kent, and the difficulties connected with any proper comparison were brought out, Section 8, 7802, etc., etc. It was elicited that a fixed Budget, £114,136, was charged each year, that this sum did not include the expense of managing and supervising the Lighthouse Services, that their lightvessel service is inconsiderable, and that there is no wreck removal service connected with it; that the wages in France are, as compared with ours, much cheaper, say as 48 to 68 per annum; that the number of lightvessels in England, 50, as against the 7 in France, which represents at least £60,000 per annum; and our steam vessel service another £40,000. Also the crew of a French lightvessel is nearly double that of ours. I would add to the evidence then given one illustration: The coasts of England are n many places fringed with sandbanks between which are navigable channels, and in other parts there are extensive rock reefs, or isolated rocks, which require to be marked.

5096. By the coasts of England do you mean as opposed to those of the United Kingdom, or are you speaking of the United Kingdom generally?—I am speaking of England and Wales, and my reason for speaking of them is that the length of the French coast and the length of the English coast is not very far different. The French coasts, on the contrary, are not bordered by outlying dangers to anything like such an extent. To mark the dangers in question England has no less than 61 lightvessels, including spares, and 23 rock lighthouses, all of which require special service of reliefs, and are expensive establishments to keep up.

5097. Sixty-one lightvessels?—(*Mr. Owen.*) That is including the spare vessels. (*Sir George Vyvyan*) The French have only 7 lightships and one or two rock lighthouses. To show the difference this makes in our disbursements I will instance the east coast of Kent from the North to the South Foreland, a distance of fourteen miles. If there were no outlying dangers, the two existing lighthouses at the North and South Foreland would be a sufficient protection, costing about £1,350 per annum. But four lightvessels and ten buoys are also required, which cost nearly £6,000 a year to maintain, without reckoning the proportionate expense of the establishments and steam tenders which are necessary to attend to them. In the same way the east coast of England right up to the Spurn requires not only the land line, but always one, and generally two sea lines, to be guarded, and it is to be remembered that it is the floating service which involves by far the heaviest expenditure. It is believed that if the figures could be obtained, and the different conditions of coast taken into account, the expenditure on the English system would compare favourably with that for the French Service; and there is no other country which will bear comparison with ours. Of course, by "ours" I here include the Scottish and Irish Services.

Removal of Wrecks: Importance of.

5098. Have you anything to say with respect to the removal of wrecks, which is the next heading?—Particulars of the duties of the Trinity House in respect of wreck removals have already been furnished to the Commission by our Secretary (see Questions 278-281 of his evidence). I have only to add that the Corporation regard this work as one of their most important duties, and which, in their opinion, would go a long way to justify, if justification were needed, the apparent large expenditure involved in having specially-fitted Trinity House tenders stationed at different points on the coast, where they are ready at any moment to proceed in search of, or to deal with wrecks dangerous to navigation. It has been estimated that the time occupied by the various Trinity House steamers upon wreck work in any one year is equivalent to the continuous employment on such work of one steamer during the whole year.

5099. The wreck work of the Trinity House is very large as compared to that of the Irish Lights or the Northern Lights?—I should think so, very large; the Scottish have hardly any.

5100. The work of the Scotch and Irish Lights in that matter is insignificant?—I do not know that it is brought to our knowledge very much, but I believe there is no comparison between them.

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5101. Can you give us any explanation of the difference?—First, the large amount of navigation, and, secondly, the difference in the dangers of the coast. There is no place like the Bristol Channel, or the Goodwin Sands, the Bristol Channel particularly, on account of the strong tides.

5102. The duty of removing wrecks is imposed upon you by the Wrecks Act?—By the Merchant Shipping Act, and it includes protection of lifeboats.

Duties of General Lighthouse Authorities as to,

5103. I notice that Mr. Pelham, in answer to Question 30, states that the removal of wrecks is not a duty imposed upon the Lighthouse Authorities; the Act merely gives them power to remove wrecks?—That is a legal definition. I know we have got to do it.

5104. You do not regard it as merely discretionary?—No, Sir. It would be impertinence in me to question Mr. Pelham's legal knowledge, but all I can say is this, that for the lifeboats we are obliged to carry it out; we satisfied ourselves that the obligation rests on us, and "may" means "shall" in this instance.

5105. I only wanted to have the point definitely cleared up?—It gives us the power to do so, and we have no alternative.

5106. (*Admiral Henderson.*) Do you say you have to do with lifeboats?—If a wreck is a danger, not to general navigation, but to the services of the lifeboats, there is a clause included in the Act which puts upon us the burden of removing such a danger.

Disputes as to,

5107. (*Chairman.*) Have difficulties often arisen between the General Lighthouse Authorities and the local authorities with respect to this duty of removing wrecks?—Yes, Sir, continually. It is an expensive duty and one which the local authorities generally shirk if they can, and we cannot compel them to remove the wreck. Take Yarmouth, a wreck occurs in the approaches to Yarmouth, they laugh at us, and we have to do it.

5108. It was stated by Mr. Cook that the local authorities have the right of appeal to the Board of Trade in cases of dispute respecting the removal?—(*Mr. Owen.*) That is all in the Act, Sir; this is in the 533rd Section of the Act: "If any question arises between a harbour or conservancy authority on the one hand, and a General Lighthouse Authority on the other hand, as to their respective powers under this part of the Act for the removal of wrecks, in relation to any place being in or near an approach to a harbour or tidal water, that question shall, on the application of either Authority, be referred to the decision of the Board of Trade, and the decision of that Board shall be final."

5109. I see; it is a bilateral appeal?—(*Captain Clarke.*) We always disperse the wreck if it is a danger to navigation, and then the appeal comes on afterwards.

5110. The appeal then is merely on the question of expense?—Exactly, Sir.

5111. The duty is carried out by you in any case?—In special cases; we could never see navigation stopped because of a wreck.

Local Lights: Position of Trinity House with regard to,

5112. You have already replied to a question about the local lights?—(*Sir George Vyvyan.*) There is a letter we wrote to the Board of Trade—I will ask the Secretary to read it—which I think will describe our position with regard to local lights. It is not a long one, and it is an official document by which we are bound. (*Mr. Owen.*) This is a letter which the Trinity House addressed to the Board of Trade on 8th January, 1907.

"Trinity House, London, E.C.,
8th January, 1907.

Sir,—I am directed to acknowledge the receipt of your letter, dated 22nd ultimo, requesting to be furnished with information as to the circumstances in which the responsibility for the lighting of the Thames was assigned to the Trinity House, and also as to any cases which may exist in the jurisdiction of this Corporation, where lights, which may be said to be of a local nature, are maintained at the expense of the General Lighthouse Fund.

In reply I am to state that, so far as the Thames estuary is concerned, a large proportion of the seamarks were in existence long before the passing of the Merchant Shipping Act of 1854, and were established by the Corporation under the powers vested in them,

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(1) by their charter; (2) by patents and orders granted by the Crown; and (3) by various Acts of Parliament.

Prior to 1864 the responsibility for establishing and maintaining lights and buoys in the River Thames proper, below London Bridge, was vested in the Thames Conservancy, but, by an Act passed in that year (27 and 28 Vic., cap. 113, Section 52), the lighting was transferred to the Trinity House, and by a further Act of 1878 (41 and 42 Vic., cap. 216, Section 4), the buoys hitherto maintained by the Thames Conservancy were also transferred to the Trinity House, and became a charge on the Mercantile Marine Fund, now the General Lighthouse Fund.

It should, however, be borne in mind that, before April, 1899, light dues were charged on the principle that vessels paid for each light passed or from which benefit was derived, and that, in addition to the tolls levied for individual lights, etc., in the Thames and its approaches, special 'buoyage and beaconage' dues were charged upon all vessels entering the port of London, and certain places within the Thames estuary, and, in the aggregate, these tolls produced a revenue far in excess of the cost of the maintenance of the seamarks concerned.

With regard to the inquiry contained in the last paragraph of your letter as respects other seamarks on the coasts of England and Wales, which may be said to be of a local nature, and which are maintained by the Trinity House at the expense of the General Lighthouse Fund, I am directed to state that, in the opinion of the Elder Brethren, it would, at the present day, be very difficult to draw a hard and fast rule as to what seamarks should be regarded as "local" and what as 'general'; but I am to transmit herewith a list of those lights and buoys in existence before the Merchant Shipping Act of 1854 came into operation, which had always been treated as "local," and which were taken over, with the other seamarks belonging to the Corporation, without any question as to their local nature having been raised, so far as the Elder Brethren are aware.

Specific tolls were also levied in respect of these 'local' seamarks, and the revenue derived therefrom was originally sufficient to defray the cost of maintenance, but owing to subsequent reductions and abatements, this had ceased to be the case in the majority of instances at the time the tolls were abolished by the Act of 1898.

I am, etc.,

(Sd.) A. Owen.

The Assistant Secretary, Harbour Department, Board of Trade."

(Enclosure.)

List of lights and buoys which may be said to be of a local nature, but which are maintained by the Trinity House at the expense of the General Lighthouse Fund:

Name and Date of Establishment.	
Tees Buoys	Prior to 1710
Lynn Well Lightvessel	1828
Hunstanton Lighthouse (coal fire)	1665
Hunstanton Lighthouse (oil light) (Purchased 1837.)	1777
Woodbridge Buoys	1849
Calshot Spit Lightvessel	1842
Exeter Buoys — Exe Fairway Buoy laid	1816
St. Anthony's Point Lighthouse	1835
Bideford Bar (Two Lighthouses.)	1820
Carmarthen Buoys (When three were established.)	1825
Usk Lighthouse	1821
Burnham, Two Lighthouses (high light). Prior to	1813
" " " (low light)	1832
Aberdovey Buoys — First buoys laid	1830
Conway Buoys	1814
Menai Lighthouse	1838
Air Point Lighthouse and Dee Buoys	1776
(The Lighthouse was discontinued in 1883, and the Dee Lightvessel placed in lieu thereof.)	
St. Bees Lighthouse (coal fire)	1718
St. Bees Lighthouse (oil light)	1823

All these lights and buoys were established or purchased by the Trinity House for the benefit of navigation either upon direct representations from the trade or persons interested, or after it had been ascertained that they were willing to pay the tolls which it would be necessary to levy in order to defray the cost of their upkeep.

Trinity House, London, E.C.,
8th January, 1907.

Provision of, out of General Lighthouse Fund.

(*Sir George Vyvyan.*) Then, Sir, in determining whether or not a light or seamark, which might be considered a local light, should be paid for out of the General Lighthouse Fund, it should, I think, be borne in mind that our primary duty is to save life and property, and if we decided that the installation of such a light or seamark was necessary for this purpose, we ought not to refuse to erect it solely because the local authority declined to furnish the funds which were necessary, or because there were conflicting interests, or no authority at all. In the examination of the Professional Adviser to the Board of Trade before the Royal Commission in the year 1861, he lays down as a rule that harbour lights and buoys are not to be paid for out of the Mercantile Marine Fund—unless as a harbour of refuge—unless they are of use for the general passing trade. Practically, we have departed from that rule; we are improving Bideford, are placing a gas-buoy near Fleetwood. It has become a much broader question than it used to be; it is also a question of degree, and depends, to a certain extent, on the views held by the Advisory Committee. In that we have departed from the custom that was observed some 30 years ago, and if you look at the evidence before the Royal Commission of 1861 you will find that that is not the mode that the Board of Trade proceeded on in those days; they refused to allow anything to be regarded as coming under the General Lighthouse Fund—the Mercantile Marine Fund—if it could be paid for, if there was a local authority at all.

5113. That is not the attitude they take now?—That is not the attitude they take now; it has been altered.

5114. So far as the port of London is concerned, I understand the position is this: up to the year 1898 no hardship was inflicted upon the shipping community, generally, as regards the maintenance of lights in the Thames by the Trinity House, because special dues were raised in respect of those lights?—(*Mr. Owen.*) That is so.*

* *Note.*—The witness subsequently wrote: "I have been thinking over my reply to the Chairman's question, No. 5114, relating to the Thames lights being maintained out of the General Lighthouse Fund, and have since got out some figures with respect to the amount of light dues collected at London and Liverpool respectively, which may possibly be of interest. It will be seen therefrom that, for the six years prior to 1898, when vessels were charged on the principle of paying for each light that was passed, or from which benefit was derived, the average annual collection at London was between six and seven thousand pounds per annum in excess of the Liverpool collection, of which sum a large proportion would be for the special lights which were only charged upon vessels using the river Thames. Since the Act of 1898 came into operation the difference between the light dues received through the port of London as compared with Liverpool is even greater than it was prior to 1898, as, for the period 1900 to 1906, the average annual collection at London was nearly twenty thousand pounds in excess of that of Liverpool. This, in my opinion, points undoubtedly to the fact that the method of charging light dues which came into operation by the Act of 1898, under which vessels pay a fixed rate per annum, regardless of what port in the United Kingdom they may be using, operated more in favour of the trade of Liverpool than of the trade of London. It seems to me, therefore, with reference to the evidence of Mr. Norman Hill on this subject, that it might reasonably be argued from the above figures that Liverpool has no more grievance now in connection with the maintenance out of the General Lighthouse Fund of certain special seamarks in the river Thames than she had prior to 1898.

"(Signed) A. Owen."

	London.	Liverpool.	Difference.
Annual collection of light dues based on a six years' average, 1893—98	£122,476	£115,983	£6,493
Ditto 1900—6	99,064	79,700	19,364

5115. It was only when the system was changed that the shipping community, generally, might reasonably claim that they had some ground of complaint?—Well, Sir, prior to 1898 there was a handsome revenue brought to the account of the General Lighthouse Fund for those special seamarks which vessels had to pay for entering the port of London.

5116. But now, under the existing state of things, the obligation of Trinity House to light the Thames would, in any case, continue so long as there was no port authority?—(*Sir George Vyvyan.*) No port authority.

5117. On the general principle that the lighting of the coast is the duty of the General Lighthouse Authorities, wherever it is not the duty of local authorities?—Yes, and none of the lightvessels lying in the estuary of the Thames lie in any water controlled by the local authority; not one of them.

5118. Is there any other harbour which is in a similar position to the estuary of the Thames at the present time?—(*Mr. Owen*) The Mersey, Sir.

5119. But the Mersey is under a local harbour authority; I mean, instead of being under Trinity House and paid for out of the General Lighthouse Fund?—Not anything like to the same expenditure. A list has been handed in, I think, giving particulars of the local lights maintained by Trinity House, but the principal ones at the present time would be Exmouth, Aberdovey, Carmarthen and Bideford.

5120. And there, also, local dues were levied prior to the Act of 1898?—Prior to the Act of 1898, and now, not being levied, we carry on the work, because in these districts there are no local authorities. (*Mr. Owen.*) But those dues, in recent years, have been so small that they have not paid the whole expense of keeping these seamarks in position.

5121. (*Admiral Henderson.*) They are what you call the Trinity outports?—No. (*Captain Clarke.*) The Trinity outports are only those with regard to pilotage work.

5122. It has been mentioned in the evidence that you have something to do with the lighting and buoying of Southampton?—Nothing whatever.

Fog-signals.

5123. (*Chairman.*) Will you pass on to the next head concerning fog-signals?—(*Sir George Vyvyan.*) I do not know that there is anything to say. Returns have been put in giving particulars of fog-signals—44 signals at lighthouses and 52 at lightships, including the one at Dover.

Blackwall Workshops: System of apportioning accounts.

5124. And the Blackwall Establishment?—Well, that is the Engineer's evidence; I have nothing to say about that.

5125. I think you said a change had been made in the accounting of the expenditure at Blackwall?—Yes, that was made at the suggestion of the Board of Trade and the Auditor-General. (*Mr. Owen.*) The Comptroller and Auditor-General raised the question last year, and said it would be a better method to appropriate the money to the general headings instead of charging it to the Blackwall Wharf—that is the Blackwall Workshops we are speaking of.

5126. Does that include a proportion of the head offices expenses at Blackwall?—There is no head office expense; there is the district.

5127. I ought to say office expense—the expense of the staff?—Yes, certainly.

5128. You charge so much in respect of the expense of the staff for every service performed?—I should think that is so, Sir.

5129. Blackwall, then, I understand practically does not appear in your accounts at all now; every expenditure in Blackwall is distributed?—Distributed under the various heads of expenditure.

5130. (*Admiral Henderson.*) Except that portion of it which comes under the Storehouses side?—There is the superintendent's department, the depôt which is charged to Blackwall Wharf; you know Blackwall is our headquarters

5131. So far as Blackwall is a manufacturing establishment?—That is charged to the various headings. (*Sir George Vyvyan.*) When we talk about the Blackwall Establishment, I am afraid we have been thinking of the Engineer's department entirely.

5132. (*Chairman.*) Then as regards Colonial lights?—We do a great deal of work for the Indian and Colonial Governments. They frequently ask the aid and advice of the Trinity House in connection with proposals for new and improved lights. Here is a list: Cape Pembroke, Falkland Islands, Basses, Malacca Straits, South Nigeria, Madras, Burma, etc. The Secretary has referred to some of these. Most of the lighting stores required by the Indian and some of the Colonial Governments are supplied through Trinity House; in fact, nearly all of them.

Work done by Trinity House for Indian and Colonial Governments.

5133. With regard to these lights, you are only an advisory body, except in so far as you supply the funds?—Yes, we advance the money for those which are maintained out of the General Lighthouse Fund account.

5134. You find the money, but, on the other hand, the income from those lights covers the expenditure upon them?—A few of them.

5135. And that is a matter entirely separate from the General Lighthouse Fund?—Yes. The average annual amount of disbursements by Trinity House on account of these extraneous services is over £3,000 for the special Colonial lights above-mentioned and about £7,000 for Indian and Colonial Governments.

5136. Who are the administering authorities in the case of those lights?—Oh, they vary. (*Mr. Owen.*) Our work comes principally through the Crown Agents, and the Colonial and India Offices.

5137. It is the different Colonies and the India Office that maintain the lights?—Yes.

5138. (*Admiral Henderson.*) Are those sums recovered?—Oh, yes, and a charge of 2½ per cent. is made in addition in respect of such portion of the expenditure as is represented by labour at the Blackwall Establishment.

Notices to Mariners:

5139. (*Chairman.*) The last subject referred to in your *précis* is the issue of Notices to Mariners, about which we have had a good deal of evidence?—(*Sir George Vyvyan.*) Captain Tizard, Assistant Hydrographer to the Admiralty, stated in his evidence that, in his opinion, it would be an advantage if all Notices to Mariners were issued by the Admiralty, as he considered that the object of issuing notices is to enable the mariner to correct the various publications which enable him to navigate his ship safely, and he contends that the General Lighthouse Authorities do not give sufficient information for this to be done. Captain Tizard also said that General Lighthouse Authorities' notices only reach a very limited number of people, and that they do not touch foreign-going ships. Captain Tizard appears to be under a misapprehension in this matter, at all events so far as the Trinity House is concerned, as all important notices relating to lights and buoys under the jurisdiction of the Elder Brethren contain very full and all necessary information for the mariner. These notices are published directly the change in lights or buoys is effected, and are not only distributed to the Custom House and principal Mercantile Marine Offices round the coast, but to pilots, mercantile marine associations, and other bodies at home and abroad, and to the consuls in London of all the principal foreign countries, the majority of which reprint the Trinity House notice. Information relating to Trinity House seamarks is thus obtained by the mariner much more promptly than if particulars had first to be sent to the Admiralty, and then embodied by them in a notice. The information given in these notices is also inserted in an abbreviated form in the next Board of Trade Weekly Supplementary Summaries, and repeated in the Monthly Summaries, a special issue of which is made for foreign-going ships, and sent to various places abroad. Full details to enable the position of lights and buoys to be correctly plotted on the charts are sent from the Trinity House to the Hydrographer, in addition to copies of the notices. I do not agree also with Captain Tizard that the issue of notices relating to wrecks is unnecessary, for I am of opinion that it is most desirable mariners should have a warning of wrecks in British waters which, as obstructions to navigation, are being dealt with by a General Lighthouse Authority, and this can best be done in the form of a Notice to Mariners defining the position of wrecks and marking lightvessels and buoys.

Advantage of issue of, by Lighthouse Authorities.

5140. (*Colonel Herbert.*) There is very little I have got to ask you, you have given us so much information already; but there is one question I should like to put,

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and that is with regard to a statement which is contained in a letter of yours which you have referred to already to-day—that administration would be simpler and less expensive if framed on one basis and under one authority. It is on page 6 of this letter of yours to Sir Francis Hopwood, dated 20th March, 1903?—I think I have said that; I think I may agree to that.

5141. You repeated something of the sort to-day?—Yes. I could not deny that it would be simpler and less expensive.

One Central Lighthouse Authority: Would be economical.

5142. That suggested the idea that you had probably considered the question of the establishment of a single authority?—Yes.

5143. And whether you could give us the result of your considerations on that subject?—You may take it as an axiom, I think, that centralisation promotes economy, that one Board must be necessarily cheaper than three. There is only one head office, one engineering head; perhaps there might be economy in the case of the fleet; and, generally, I think you may take it as a principle that one would be always cheaper than three.

5144. Have you ever considered the details of any scheme by which one authority might be substituted?—I think I may say that I have abstained from such considerations. I do not think it is part of my duty.

5145. I understand you saying that Trinity House did not consider it part of their duty to report on that subject, but I was asking you as Sir George Vyvyan now, upon your experience, as to whether you had any ideas on the subject which might be useful to us on the question we are inquiring into?—I think I have said in evidence to-day that it is my firm opinion that local authorities, local bodies, best appreciate, from their position, local needs.

Survey work of Trinity House

5146. There is only one other question that I wish to ask, and that is with regard to the hydrographical works involved in the fixing of your buoys. Captain Clarke, I think, described to us what is being done; you practically have to survey the banks?—(*Captain Clarke.*) Yes, banks and channels also. The outlying banks, where it is not possible to get objects from which to take angles.

5147. That is the work, is it not, of the Hydrographical Department?—Of the Hydrographical Department, quite right.

5148. Therefore you are duplicating that work?—Yes, but it is our duty to see that that bank is properly guarded for the navigator, and that the buoys round that bank are adequately guarding that bank. The finding out of the true position of the bank geographically is the work of the Hydrographical Department, and when we find that any change has taken place in the formation of the bank which necessitates the altering of the buoys, to guard it adequately for the seaman, we then inform the Hydrographical Department, and they make the special surveys by triangulation and other methods.

5149. In fact, the Hydrographical Department are dependent upon you?—Not altogether; assisted by us. (*Sir George Vyvyan.*) And I would say, if we were to be deprived of those duties, the hydrographical duties would be augmented in the same proportion.

5150. Yes, but it was merely to see how far the functions of the two bodies were crossing one another?—They do cut there. We are able to give assistance to the Hydrographical Department when we find that a bank is changing its configuration. We are in constant and friendly communication with the Hydrographical Department, and they constantly give us information when they find anything wrong with our buoys.

5151. (*Mr. Ennis.*) You have said during your examination to-day that you believe that local needs are best judged by local men?—(*Sir George Vyvyan.*) Best interpreted.

General Lighthouse Authorities: Representation of localities on, would be advantageous.

5152. And would you be disposed to push that opinion a little further and say that in the constitution of the Trinity House it would be desirable, and in the constitution of the other Lighthouse Authorities it would be desirable, to have the various large ports of the kingdom, so far as it would be practical to do so, represented on the General Lighting Authority?—I agree.

5153. You have described to us the method of election of an Elder Brother from the ranks of the Younger Brethren?—Yes.

Elder Brethren: Election of

5154. But I think I am right in assuming that, although it may not have obtained in practice in the past, there would be nothing illegal or contrary to regulation in your electing as an Elder Brother a Younger Brother who had held office for a very short time; in fact that you might, to push the argument to its extremity, elect a man a Younger Brother, at a meeting to-day, and in a fortnight's time elect him an Elder Brother?—Yes.

5155. I mean that it would be possible to do so?—Theoretically it would be possible, but I think his qualifications would have to be so phenomenally manifest that it is most unlikely.

5156. I have not suggested that in practice it has obtained?—It is a possibility.

5157. But my point is that if you recognise that it would be desirable to have the members of the Trinity House as nautical experts—if it would be desirable to have, say, a man with an intimate knowledge of the coasts of St. George's Channel and the Irish Sea, the port of Liverpool, and so on—that if such a man presented himself to your minds, that there would be no difficulty in making him a member of your Board, even though he had not previously been a Younger Brother?—I would not say there would be no difficulty, nor do I think that his knowledge of St. George's Channel or any particular channel would have much effect, as I do not suppose it is very likely that his knowledge would exceed ours, but if such an occasion were to arise that somebody of phenomenal experience, whose advice would be of inestimable benefit to us, came along, rather than lose him it is possible that we might even under those circumstances elect him.

5158. You accept in other words, I think, my suggestion that it would be desirable, so far as practicable, that the different Lighthouse Authorities in the kingdom should have expert knowledge of the various ports of the coast?—That goes without saying. It would be an advantage, as you say.

Advisory Committee:

5159. An advantage, yes. With regard to the Advisory Committee you have told us that at first your relations with that Committee were strained, but that they have now very much improved; can you point out to us any case of any public body in which the relations which are borne by the Advisory Committee to the Lighthouse Authorities exist; I mean is there an analogous case to your knowledge in any other public service where a committee has been established, without any statutory authority, which has no power of enforcing its views, but which at the same time carries large weight with the bodies with which it is associated?—I am afraid my knowledge of the public service is limited.

5160. You have no knowledge of any similar case?—No.

5161. (*Chairman.*) There is a Commercial Advisory Committee to the Board of Trade which is not statutory?—Yes; you must not take my evidence as of very much importance in this matter.

5162. (*Mr. Ennis.*) But with regard to the actual working of the Advisory Committee which was established in 1900, I should like to have your opinion in general terms as to whether the operation of that Committee has tended, in regard to lighthouse administration generally throughout the Kingdom, as a drag upon expenditure, or as an incentive to increased efficiency?—I cannot say; would you repeat the last paragraph; as a drag on the expenditure.

5163. As to the operation of the Advisory Committee as compared with the working of the Lighthouse Authorities before the Advisory Committee came into being, whether the effect has been as a drag on expenditure or as an incentive to increased efficiency?—I suppose that by "drag on expenditure" you mean whether it has resulted in any economies?

Effect of, on Lighthouse Expenditure.

5164. Any economies on the part of the Advisory Committee which were upheld by the Lighthouse Authorities with regard to proposed expenditure?—I cannot point to any decrease in expenditure that has occurred in consequence of the existence or the imposition of the Advisory Committee. I remember one small one at the very beginning, the first year a hulk was taken out of the list, and later the proposed expenditure for the submarine signal; that is all as far as the Trinity House was concerned—I should prefer to deal only with the Trinity House—those are the only two economies. And as to the efficiency, I do not think they have done any harm in that direction. They

certainly have proposed measures which we have accepted, and that we should not have accepted had we not deemed them efficient.

5165. Lists have been put in to the Commission of works recommended by the Advisory Committee, and also lists of works objected to by the Advisory Committee. Does not the list of works objected to largely exceed in number and in cost the works that have been recommended?—I have not seen the list; yes, I should say so.

5166. The Advisory Committee appear to have objected to a considerable number of works on the coast of Scotland which were not recommended by the Trinity House, but which the Board of Trade subsequently sanctioned?—Lately?

5167. No; since the establishment of the Advisory Committee. This return covers the period since the establishment of the Advisory Committee?—There can be no doubt that the Board of Trade have, and I think wisely and properly, exercised their jurisdiction in sanctioning works, the expenditure on which the Trinity House may have considered not quite justified.

Influence of, on decisions of Trinity House.

5168. My question was with reference to the effect of recommendations or otherwise of the Advisory Committee upon such works, as to whether the Trinity House were not influenced by the Advisory Committee in sometimes rejecting works that possibly they might not have rejected but for the action of the Advisory Committee?—No, I should think not.

5169. Well, with regard to this specific instance that you have mentioned as to the offer of the Zeeland Company to instal an apparatus for submarine signalling at the Tongue lightvessel at their own cost, and to remove it if the experiment should be deemed to be unsatisfactory by the Trinity House, or to hand it over if the Trinity House wished to take it over, you have told us, so far as I understand, that an estimate of £1,000 was put in for the cost of experiments?—Yes, hardly experimenting; for trial. I think you are talking of the year before last?

5170. Yes; and that this expenditure was objected to by the Advisory Committee?—Yes.

5171. And was then dropped by the Trinity House; you said you did not press it?—Yes.

5172. You have told us that you have brought this on again now, as the results of the experiments already carried out were so favourable that you have brought this proposal on again, but that so far it has not been passed?—It has not been sanctioned.

5173. It has not been sanctioned, yet the results having been favourable I take it that Trinity House would have been willing to make a practical trial of this experiment?—Pardon me one moment; I think it has passed the experimental stage.

5174. Yes; I was going to put that to you, because is it not a fact, as shown by the report of Colonel Anderson, of the Canadian Service, that submarine bells have practically been in operation off the coast of Anticosti and in the Bay of Fundy prior to 1905; the report is dated January, 1905?—Are you aware, Sir, that the Allan Company have withdrawn it from all their ships?

6175. We have been told so?—Yes; we have accepted it as true.

5176. We have no further information, but we have been told that is so; we have had no reason for it though, and the witnesses seemed to be agreed that the instalment of submarine signalling would undoubtedly be an advantage?—To some shipping.

5177. To what ships?—Cross Channel traffic, for instance.

5178. Those ships which might be fitted to receive it with microphone and telephone?—Yes.

5179. The advantage would be to those ships, I take it?—Yes.

5180. And I assume there is on the face of it the difficulty that those ships which are not provided with apparatus to receive this signal would not benefit by it, but I think if you would also assume that if it were installed on all lightships the underwriters, Lloyds, would be likely to make conditions as to insurance which would have the effect of practically compelling steamships to adopt it?—I do not think so.

5181. But at all events in that particular instance the recommendations of the Advisory Committee were adverse to the carrying out of this trial?—They have postponed it.

5182. Now then with regard to the absence on duty of the Elder Brethren of the Trinity House, could you give us any information as to roughly what percentage of the total time of the Elder Brethren is occupied in absence on duty. I mean absence on what I call the outside service?—What ratio the outside service bears to the actual service?

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5183. Quite so?—I could not give you that. I should think inconsiderable.

5184. Now, with regard to the cost of maintenance of the steamship fleet, I understood—I think it was Captain Clarke who informed us on that point—that the entire fleet were gutted out, scaled, and painted, except two, within the period covered by the return?—(*Captain Clarke.*) Yes.

Steamvessels: Maintenance and repair of.

5185. And Captain Clarke stated that similar work would not require to be done for many years?—For several years to come.

5186. About how many years would you consider to be the life of the operation?—Well, I should think that that would not require to be done for something like 10 to 12 or even 15 years in some cases; much depends upon the ship and whether she is built of iron or steel.

5187. Quite so; but anything between 10 and 15 years would be a fair average for calculation as to spreading the cost of such operations over?—I should think so.

5188. You also said that the "Irene" was used—that the extra cost was to a certain degree due to the fact that she was used for inspection work?—She was specially built for that purpose.

5189. Is it not a fact that in the Irish Lights Service the "Alexandra" is used for that purpose?—(*Sir George Vyvyan.*) Both the other services have analogous ships.

5190. A comparison between the "Irene" and some of your own fleet may not be made with advantage, but a comparison between the "Irene" and the "Alexandra" would?—(*Captain Clarke.*) When the latter has been running for over 16 years.

5191. May I ask, Sir George, has there been an election of an Elder Brother since the 29th November last?—Yes, in the place of Captain Fenwick.

Elder Brethren: Ages of.

5192. I assumed there was, because in answer to a question you gave the average age of the Elder Brethren as 55?—I included the new member in the average I gave.

5193. In the return for 1906 the average then was 58, and in a printed return some time previously the average age worked out at 63?—In my average to-day I have eliminated Admiral McClintock also.

5194. I assumed that was so. I just wished to make it clear?—It is so.

5195. In the Scotch and Irish Boards you point out that the nautical element is absent, and we have already had evidence to that effect?—I have pointed it out; I suppose you may say so.

Control of Trinity House over Scotch and Irish Boards.

5196. I think you have also stated that the Trinity House have no special relish for the supervisory work that they do over the other Boards?—I do not think we yearn after it.

5197. And you consider that if the nautical element were properly provided in the Scotch and Irish Boards the *raison d'être* for the supervision of the Trinity House would to a certain extent cease?—In answer to that, I may say that for several years, until they were told it was an improper expression, the Scottish Board, in asking us for our sanction, abstained from using the word "statutory," and asked for "nautical"—"nautical sanction" instead of "statutory"—until we pointed out that it was a very improper term.

5198. You have referred to circumstances that arose in connection with the Irish Lights Board as to a steamer for the Fastnet?—Yes.

5199. That some circumstances arose which made you consider it necessary to have details of expenditure?—Yes; I think I omitted to say that our attention was drawn to the circumstances also by the Board of Trade.

5200. That, I suppose, referred to a steamer called the "Ierne"?—It did; I think it was the "Ierne."

5201. May I ask, in general terms, was your objec-

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tion to the employment of the "Ierne" as an attendant steamer on the Fastnet, or to the money spent on the "Ierne"—to excessive expenditure?—I do not know that we object to the use of the steamer, and I do not know that the term "objection" is quite an appropriate one, but it became apparent to us that we were not in possession of all the details that we thought we were entitled to.

5202. You considered that the details furnished to you by the Irish Board were not satisfactory, or were not clear?—Were not clear.

Mizen Head light and fog-signal: Attitude of Trinity House and Irish Lights Board as to,

5203. Are you cognisant with a question about which evidence has been given here as to the demands made by Liverpool shipowners with regard to a fog-signal on Mizen Head? I think the application was made to the Board of Trade with regard to the establishment of a fog-signal at Mizen Head?—(*Captain Clarke.*) I am aware of it.

5204. Are you aware that the Irish Lights Board objected to the erection of a fog-signal unless accompanied by a light?—I am aware of that.

5205. That both fog-signal and light, as far as my information goes, I think I am correct in saying, were objected to by the Trinity House?—That would not be correct. The Trinity House are in favour of putting a light where a fog-signal is established, and have said so.

5206. The Trinity House are at one with the Irish Lights Board?—The Trinity House are at one with the Irish Lights Board on this subject.

5207. But in any case the actual facts are that a fog-signal minus a light is being established?—Is being established, yes; quite so. (*Sir George Vyvyan.*) With reference to a former question of yours, that there is some advantage in the Advisory Committee, I think the proposition first came from them. (*Captain Clarke.*) In 1905 the Commissioners of Irish Lights requested statutory approval to the establishment of a light and fog-signal on Mizen Head, which was granted by the Elder Brethren. The light, however, was not approved at the Conference, and the establishment of an explosive fog-signal only was eventually sanctioned in 1906, but the Trinity House have never departed from the opinion expressed by them, that a fog-signal should not be established there without a light.

5208. But it was not sanctioned by the Board of Trade?—No; ultimately it was decided to establish only a fog-signal there.

Port of London: Lighting of,

5209. With regard to the port of London and the lighting of the port of London, your evidence, I think, Sir George, has been to the effect that by the Acts of 1864 and 1878 provision was made with regard to the lighting and the buoyage of the Thames estuary, but that up to the period of the passing of the Act of 1898 that did not in any way injuriously affect the revenue of the General Lighthouse Authority, because the dues raised were more than sufficient to cover the cost?—(*Sir George Vyvyan.*) Yes, an ample profit.

5210. But since 1898 the fact of the change then made has resulted in a preferential treatment of the port of London with regard to the General Lighthouse Fund to the value of something which I assume to be between £40,000 and £50,000 per annum?—It may be so, but you cannot help it; the lights must be placed there. I will accept your figures; the lights must be placed there. What do you call the port of London? (*Captain Clarke.*) That is the point.

Limit of jurisdiction of Trinity House, over,

5211. That is the point I desire information upon; I have not been able to ascertain where your General Lighthouse Authority goes to?—(*Sir George Vyvyan.*) I think the Thames Conservancy end at London Stone—do you know the river?—which is above Southend, the London side of Southend. From there, there is no question that any light, if it is decided to be necessary, must be provided as if it were in any part of England apart from the port of London.

5212. And every lightvessel in the Thames estuary is under the control of the General Lighthouse Authority?—Outside that point.

5213. But there are none inside; therefore every lightvessel is?—Yes, every lightvessel.

5214. Now, with regard to lightvessels, there is one point which I should like information on; I before asked the question as to whether it would be possible to segregate the portion of time occupied by the steamers in attending the lightvessels and in discharging their other duties. I am told it is not possible?—The duties run into each other so much that it would be almost impossible.

Lightvessels: Relief of,

5215. I have here the returns sent in showing the period and cost of relief of both rock and coast lighthouses, and I suppose the same thing applies to the lightvessels, that is to say, that excepting in very isolated cases—there is one case here in which there is a weekly service; that is at Holyhead, and communication is along the breakwater, which simply means conveying relief along the breakwater at Holyhead—but in very few other cases is the relief other than monthly; there are very few cases of fortnightly relief; the great majority of the cases of relief is monthly. I take it that is the practice with regard to all lightvessels?—Yes, monthly.

5216. I would like to ask—this seems to me to be an important point for a Commission endeavouring to compare methods of different Lighthouse Authorities—if you relieved your lightvessels and rock lighthouses three times each month instead of once, would that very largely increase the cost of the service?—My first answer, without consideration, would be that it would treble it, but I do not suppose that would be accurate.

5217. It would not be so much as that. It would largely increase the cost, I suppose?—Yes, our steamers would be doing nothing else.

5218. Are you aware that the Irish Lights Board give three reliefs each month to their lightvessels and lighthouses; to the majority of them, at least?—Do they?

5219. I am anxious to arrive at your opinion as to whether that is or is not necessary, because it is manifestly a case of either too large an expenditure in the one case or too little in another?—I should like to hear the arguments put to the Commissioners.

5220. Well, the arguments seem to me, so far as I can gather, the health of the crews, providing them with fresh provisions?—We have had no complaints from them at all; they find themselves.

5221. You are satisfied that your system of monthly attendance is sufficient?—Quite, for our purpose——

5222. It is an important point?—(*Sir George Vyvyan.*) It would be very important if we had to relieve them three times a month.

New Works: Decrease of future expenditure on, probable.

5223. You said also with regard to expenditure on new works that in your opinion it is likely to be less in the future?—Yes, we trust so, and there is every reason to believe so.

5224. Of course, you contemplate that the light service must keep pace with modern improvements, and that inventors are pushing ahead very rapidly?—If any important improvement sprang out of any great invention we should have to adopt it.

5225. I think it has been given in evidence to us that there has been a desire on the part of the Lighthouse Authorities to gradually equip lighthouses and lightvessels with the most efficient form of illuminant and the most efficient apparatus of every kind?—We are obliged to do so.

5226. But is there not a danger that the pace at which these improvements are being effected may not keep pace with inventors; that more efficient methods may render an acceleration of the pace necessary, and, in that case, would the expenditure be likely to be less?—My estimate is based on the present circumstances.

5227. You mentioned Strumble Head?—Strumble Head is now on the point of being finished.

5228. Yes, but the money for that work has gone on the estimates?—Yes, minus £2,000.

5229. The bulk of the money required for the work has already been provided?—Yes.

5230. That is the point that struck me, because I knew it is not yet in operation?—I can hardly conceive that any such improvement is likely to happen in the future. We have fitted all our houses with the incandescent light; we have, with the exception of what I have mentioned to you, been doing away with the fixed lights in favour of flashing lights. We look forward to economy with regard to our lightships. We hope to adopt the dioptric apparatus in our lightships to a certain extent, which will result in economy, and,

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as far as I can see, things point to a decided fall in our annual expenditure. Last year I may say that our outlay for new works were only just over £16,000.

Experiments.

5231. Do you consider that the amount of money expended in this country on experimental work is sufficient?—Yes, I think so. Whether it is sufficient or not, it is all we can do with the staff at our disposal.

5232. Yes, I understand that; but then, is it not a fact that some useful experiments have been conducted, and useful apparatus constructed, by foreign countries; you have had the mercury floats from France?—Yes.

5233. And similar apparatus; and does it not seem that the amount expended on experiments in this country is less, in proportion to the volume of general expenditure, than that expended by foreign countries?—If we had the staff at our disposal there is no doubt we should spend more money than we do; in fact, we do not spend as much money as we are allowed.

Gibraltar: Work involved in maintenance of seamarks of,

5234. Do you find any difficulty arising with regard to the care by the Trinity House of all lights outside the coast of the United Kingdom. For example, you have one lighthouse at Gibraltar?—Yes.

5235. And if a visit should be paid by the Engineer of the Trinity House, say, to Gibraltar, it would mean a considerable absence from his duties on the British coast. I mean the maintenance of that lighthouse, from the point of view of supervision and expert inspection, would be much greater than any lighthouse on the coast of the United Kingdom?—A little more; it is not much in these days; he is away about ten days at the outside, and his expenses are not very large. It is not so much a question of expense as taking him away from other work.

5236. It seems to me absence is the thing I would wish to lay most stress upon. In the event of any sudden danger, or anything occurring when he is absent at such a station as that, who takes his place?—We have a superintendent out there, a naval man; at home we have got an Assistant Engineer.

5237. You consider the other members of the staff would be sufficiently competent to deal with it?—Until he came home, yes. Something is always happening. Mr. Matthews is away at Gibraltar ten days or so.

Estimates of Trinity House: Form of accounts.

5238. (*Admiral Henderson.*) A good many of the questions I am going to ask you are connected with expenditure, which I have taken from the accounts for 1905-6, and from the estimates for the same period. First of all, I should like to ask you how this return which is made out by the Board of Trade under these various sections is made up; do you send in the completed account under those headings, or do they at the Board of Trade abstract it themselves. How are those headings made up; do you send in your returns of expenditure under those headings?—(*Mr. Owen.*) Yes, every quarter's accounts.

5239. Every quarter's accounts are sent in under those headings?—Yes.

5240. No, because they are not under the same headings as the estimates?—Are they not?

5241. That is what I want to know?—Abstract "A," Maintenance of Lighthouses; Abstract "B," Maintenance of Lightvessels; Abstract "C," Maintenance of Buoys and Beacons; Abstract "D 1.," Maintenance of Steam Vessels; and Abstract "D 2.," Maintenance of District Storehouses, etc.

5242. That is according to the numbers of this account?—Yes.

5243. I want to know how you send them in; whether you send them in under the same abstracts as you send your estimates in, and they are then abstracted by the Board of Trade, or whether you send them in under the numbered headings as they are shown in this published account?—Oh, no; the Board of Trade prepared those.

5244. I am going to ask you some questions upon expenditure upon lighthouses, and I take the lighthouses because, in comparing the administrative efficiency of the three Boards, they, being nearly on a level as to numbers, offer the best basis. The number of lighthouses, so far as I have been able to make out at present, are 71, 75 and 89, but as amended just now it is 85, 75 and 89; that is to say, the number of lighthouses of all sorts that are administered by the Trinity House are pretty nearly on a par with the Scotch Board, and are rather more than those of the Irish Board. Now, the total expenditure for the Trinity House is about, roughly speaking, £10,000 in excess of the two other Boards for lighthouses; this is 1905-6?—Yes.

5245. And if you turn to the details, I see that your cost for stores—I am presuming that you have got approximately the same amount to do—is £9,413 against £5,318 and £4,748?—Yes.

Comparison of cost of lighthouse maintenance with that of the other Boards.

5246. I want to know whether you can give any particular reason for that expenditure?—Well, I think we ought to have some opportunity of knowing what they charge under their headings; we have had no particulars of that at all; you merely give me the accounts; I do not know what is charged under those headings.

5247. In the estimates which are presented to the Board of Trade the Irish and Scotch are much more explicit than the Trinity House. I have abstracted here the whole of the estimates for the three Boards, and I find that the cost of illuminants, for instance, was: Trinity House £3,778, Irish £3,115, Scotch £3,128. There is not a very great difference; you are about £700 more for a less number of lights than the Scotch. I see you have a charge of £2,750 for fog-signal stores. There is no charge of that sort in the other Boards?—They must use those stores, and they must charge them somewhere. I am afraid we cannot help you on that unless we have some details to start with.

5248. You do not think that you can give any reason for that excess without a comparison with the others?—No, I do not think so.

5249. I see one of your charges is for paints. Why do you put in paints under the charge for "oil and lighting stores"?—Those are paints that the keepers use, keeping their places in good condition.

5250. Does it not come under the head of repairs, where your ordinary paints come in?—No, the repairs would be done by a local man; the incidental repairs to keep the places wind-tight and water-tight, are usually done by contract.

5251. Where does your cost for carriage of stores come in; you distribute these stores to the various stations, the lighthouses?—Well, I should think that comes in under the superintendents' accounts at the district, the district accounts.

Carriage of stores.

5252. It is not shown under the lighthouses, then?—Allow me to look at these returns.

5253. (*Chairman.*) In the statement showing that approximate cost of annual maintenance of lighthouses, you set out the carriage of stores under the heading of "incidentals"?—That would be charged to the particular station.

5254. (*Admiral Henderson.*) Do you not deliver most of your stores by your tenders?—Not to the actual stations; as a rule the stores are sent round to the depôts; of course, some of the stores are delivered by the tender at stations where it is possible and advantageous to do so.

5255. They do, but otherwise you take the ordinary land means of communication?—From the depôt. (*Captain Clarke.*) Whichever is the cheapest.

5256. Now, where is the cost of boat hire and relief shown, which I see by your return amounted to £594? The other Boards show their cost for boat hire and assistance generally?—(*Mr. Owen.*) Wherever there is a charge for boat hire to any particular station, it is charged to that station.

5257. Against that station; but then where is that shown on the general charges?—Well, it would be shown in the accounts which go to the Board of Trade.

Form of accounts.

5258. I have got all these estimates, which have come from the Board of Trade, and it is not shown anywhere unless it is shown under incidentals?—Have you seen the printed form of accounts which goes up to the Board of Trade each quarter for each station, because that would show how it is charged.

5259. No, I have only seen your estimates?—That does not give anything like the information that the accounts do. If you were to call for a specimen of the accounts, which are submitted to the Board of Trade for each station, that would give it you at a glance.

5260. (*Chairman.*) The quarterly accounts?—(*Captain Clarke.*) Yes, the quarterly accounts.

5261. (*Sir Frank Adam.*) Is that a form supplied by the Board of Trade?—(*Sir George Vyvyan.*) No.

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5262. It is made up by yourselves?—It is a form that has been in use for years.

5263. (*Admiral Henderson.*) You do not know, of course, whether the other Boards send their returns in under the same headings?—(*Mr. Owen.*) No, I do not think they have quite the same forms as we have.

5264. Now, you have got a charge of £2,442 for incidentals; can you tell me what those incidentals comprise on the whole?—No, I am afraid I cannot without some reference.

5265. What do you put under incidentals; it is a good big charge, £2,442?—What accounts are you looking at now?

5266. I am looking at the estimates for 1905-6, which came out within £200 of the actual expenditure as given?—Yes.

5267. I see that one of the items put down in your estimates is incidentals £2,442; I wanted to know how a big sum like that is made up?—Well, I must confess I cannot tell you right off without some reference to the accounts.

5268. You think that most of these accounts can be answered by getting a single return from the Board of Trade?—Getting a return from the Board of Trade—getting the actual accounts—a specimen of the accounts submitted.

Cost of repairs to lighthouses.

5269. Now, then, turning to repairs to lighthouses, the Trinity House expenditure was £6,261, the Irish £2,906, and the Scotch £4,219. I am saying that you have a less number of lights to deal with than the Scotch Board; I take that in particular, and I want to know why there should be such an excessive expenditure?—Well, of course, to begin with, we have four electric lights, which are very expensive.

5270. Which means an addition of £300 or £400 a year each light?—Oh, pardon me, much more than that.

5271. Very well; but for the repairs thmselves—for repairs—I am talking of repairs?—For general upkeep, which is for repairs; the machinery repairs are a considerable item; it is a much larger station.

5272. Now, then, I am again speaking on the papers that we have got before us, you know I cannot go beyond them?—Which I have not seen, Sir, please.

5273. I see you sent in an estimate of £6,261, for which there are no details, for ordinary repairs?—For ordinary repairs, yes.

5274. Now, therefore, the Board of Trade take your estimate on trust for this large sum?—No, no, that is merely an estimate of the possible amount which we may expend in the year; that money is spent in annual repairs which are required for the upkeep of the lighthouses.

5275. And you send in a detailed account of that amount?—Yes, ultimately.

5276. At the end of every quarter?—At the end of every quarter.

Explanation of charges for special repairs.

5277. Now, then, we will turn to the expenditure on special repairs. I notice in the estimates that are sent along you include under special repairs thirteen conversions to incandescent oil; these are additions or alterations?—Yes.

5278. I asked a question about that before. It really means that if you add the ordinary repairs to what are called special repairs the actual sum spent is £12,966, £3,028, and £6,782. Can you give me any reason why your special repairs are much greater in comparison with the others? The Scotch have twelve alterations against your thirteen?—But are you sure that the alteration to incandescent in the Scotch service is charged under special repairs to lighthouses the same as we do?

5279. The Scotch are. There is one alteration of light only charged against the Irish under special repairs. I do not know where they put theirs under unless here?—Well, of course, I cannot tell you what their method is of charging their accounts; we never see their accounts, but abstract "A" contains special repairs for converting. The large number of stations that were converted to incandescent oil in one year would account for the very heavy expenditure under special repairs for that year.

5280. The special repairs, of course, is rather a misleading heading; it ought to be alterations and additions, as I have said before, because you may have a special repair which includes an alteration or addition; they are practically new works. Now, the next point I wanted to go to is lightvessels. We have it in evidence that all the Trinity lightvessels are attended by the steam tenders?—Yes.

5281. Excepting one; is it not on the North-Eastern district, or is that attended by a steam tender?—(*Sir George Vyvyan.*) There is no lightvessel in the North-Eastern district. (*Captain Clarke.*) Admiral Henderson means the Dee lightship where the men live in cottages in close proximity to the lightship, and they relieve themselves.

5282. No, I had it there was one lightship in the whole lot which was not attended by the steam tenders?—(*Mr. Owen.*) Not in our service.

5283. They all are?—Perhaps you are thinking of the Scotch lightvessel?

5284. No, I am not thinking of the Scotch at all. I see that your actual expenditure—of course, I am not able to compare the Boards very well in this, because of the excessive number of lightvessels that you have over the other Boards—but what I wanted to ask you was where was the charge for this special lightvessel shown, because I had made out that there was one; there is not one, you say?—No.

Buoys and Beacons. Cost of maintenance of,

5285. The average cost for buoys and beacons—I turn to buoys and beacons now—for the year 1905-6 was £9 9s., £12 7s., and £8 6s. Now, the fact that you have this large number of steam tenders should reduce the cost of your upkeep of buoys in comparison to the other Boards. If you take the number of bucys and the number of tenders, the average number of buoys that each tender has to deal with is 58, 56, and 52 respectively. I want to know why your cost should be comparatively so very much greater than that of the Scotch. It is not greater than the Irish Board, considering the large number that you have to deal with. That question has been asked two or three times before. What we are trying to drive at is this, that if you have a large establishment, the percentage of course, should come out at a less rate?—(*Captain Clarke.*) Cost of maintenance?

5286. Yes?—I should say the answer to that is that the bulk of the buoys are so far from headquarters, in outlying districts, as compared with the Scotch and Irish.

5287. I think they are distributed pretty well over the coast, very much the same in the Scotch and Irish?—(*Sir George Vyvyan.*) Our buoys are much larger.

5288. I think they have a larger number of gas buoys in the Scotch service than they have in the Trinity House; we have the numbers given somewhere in the Board of Trade return?—(*Captain Clarke.*) One would like to know what is included in that return; what are the items of it; we cannot give any answer without having the items.

5289. I think that the actual number of gas buoys is greater in the Northern Lights than it is in the Trinity House. You do not submit any estimate of the cost of buoys and beacons; there are none submitted?—(*Mr. Owen.*) If we want new buoys we submit an estimate, of course.

5290. But otherwise, you do not submit any estimate for their cost?—For the upkeep.

5291. Except the total; you do not give any details?—No.

Steam-vessels:

5292. I wanted to know whether, in consideration of the fact that you have such a very large number of steam tenders, that it is not an argument in favour of your percentage of cost being reduced in comparison with the other Boards. You have 11 steam tenders, and you naturally make use of them for all purposes, and the very fact of having these 11 steam tenders, with their attendant cost, recollecting that their cost is not put under the other service, therefore if you make full use of them the fact of their cost being on one that were converted to incandescent oil in one year would account for the very heavy expenditure under ease?—(*Sir George Vyvyan.*) It would seem so.

5293. I do not think that so far the figures that we

have got come out that it is so?—(*Captain Clarke.*) In any case, they are absolutely necessary for the services we have got to do round our coast.

5294. You have got, of course, a great many more lightvessels to deal with?—It could not be done without the steamers.

Are economically employed.

5295. I am not saying that; what I am saying is this, that having those vessels, do you make an economical use of them?—Absolutely.

5296. I am not certain that there could not be a more economical use made of them?—I wish it could be pointed out to us; we should be most happy to look into it.

5297. Do you consider this number is necessary?—Yes.

5298. I want to know, has it ever occurred to the Trinity House to consider whether they could be reduced by making arrangements with other local authorities?—We have considered it on every possible occasion, and we have found it in all cases advisable and more economical to use our own steamers.

5299. I mean to say, whether you could not reduce their radius of action; reduce the number by reducing the radius of action of those you have got, by putting within comparatively narrow limits some of the work they do out to contract?—(*Captain Clarke.*) We do that on all occasions with regard to reliefs, where it is more economical to do so; we could not do it with regard to dispersion of wrecks or attending our gas buoys, because the local vessels have not got the plant; our ships have the plant.

5300. I know that must be done in very many cases?—Discharging of buoys and relief of lightships. (*Sir George Vyvyan*). What work would you suggest?

5301. Well, such as relief of lightships might be one, and the supervision of buoys. (*Captain Clarke.*) We maintain it could not be done so cheaply as we do it with our tenders. (*Sir George Vyvyan.*) Wherever we have had recourse to that it is very expensive; occasionally we have to do it when our own vessel has not been available, and we always have to pay very heavily for it.

5302. Does the steamer at Penzance attend on the Channel Islands?—(*Captain Clarke.*) The Channel Islands lighthouses are attended by local boats.

5303. By contract?—It would not pay to do it by our own steamer.

5304. There you do it, because it is an extreme distance?—Exactly, because it is cheaper.

5305. Could you not apply that elsewhere?—We do apply it in every case where we can do it more cheaply.

Wreck work of,

5306. I see that one of their occupations, which you say comes to the rate of one steamer per year, is employment in the removal of wrecks. Of course, that means that to a certain extent you have always to have a stand-by vessel, and you must always have a vessel ready?—We must always have our vessels under steam.

5307. It occurred to me would it not be better to have a system of contracts for removal of wrecks; have you ever thought of it?—We have had wrecks removed by contract, but it is more expensive than doing it ourselves with our own ships.

5308. You think it is?—Yes, I am sure.

Size of,

5309. I see the tonnage of your vessels varies from 118 in the case of the "Ready," to 576 in the case of the "Vestal." I want to know whether you have yet reached a satisfactory mean size and design for a steam tender?—The size of a steamer depends upon the district she has to deal with.—(*Sir George Vyvyan.*) Yes, I should say that we have reached it.

5310. What I am asking is whether, when you have that very great discrepancy, on the whole there was not some mean?—(*Captain Clarke.*) It would be exceedingly difficult to have a mean.

5311. They would be inter-changeable when a vessel was laid up?—That occurs now; they are interchangeable even now, but it would be useless having a large ship to deal with a small district, with a larger crew and a larger expenditure.

5312. You use your steam vessels to supply shore stations sometimes?—Stores?

5313. Because I see that the "Mermaid" dropped a bag of lime at St. Anthony lighthouse. I want to know whether it would not be possible to get those supplies more direct overland cheaper?—If you inquire into that particular case it was only done because the "Mermaid" was going there on other business.

5314. And she stopped to do it?—She stopped to do it at little or no cost.

5315. You do distribute your stores by the ordinary means?—By rail where it is cheapest, and by steamers where steamers are bound to those stations on other duties.

Work of s.s. "Vestal."

5316. I noticed in the case of the "Vestal"—in looking through their logs—that from the 1st January to the 1st April, 1906, she was twenty-five days at work, or partially so, and sixty-five days at anchor. That is a long time?—It is because possibly during that time no serious work occurred which needed her services, but she has to be there, in our opinion, for the efficient maintenance of the outlying lightships and the relief of the stations in case of accident.

5317. That means to say that you have got more than you want for your routine duties?—Well, perhaps it might be right to say that, but still the ship must be there in case of need. It would not do on our service to have a lightship out of position for any length of time when an accident occurred.

Work of s.s. "Triton."

5318. I have particularly noticed in the "Triton's" log that she makes very slow work, that when she goes to relieve the Bahama Bank she generally does not start till 9 o'clock in the morning, then she goes over to Ramsey Bay and relieves the Bahama Lightvessel the following day, and gets back to Holyhead. It appears to me that some economy might be made supposing she should take the relief, say, not only of the Bahama but the Selker and Morecombe Bay Lightvessels on the same round?—I cannot verify that—I accept your statement as being correct, but I think if inquired into you would find it was the most expedient and economical way of doing the work, having in view the other work that she has to attend to, and probably her departure not before 9 o'clock is due to the tide.

5319. There is no question of tide at Holyhead?—No, not tide, except with regard to getting on board stores.

5320. They would be got on board over-night under any circumstances. It appears to me, looking over the log, she might do the work much more quickly than she does?—I do not think we would agree with you; we keep a very strict eye on her. (*Sir George Vyvyan.*) We do not take the men away at night if we can help it; the crew of the "Triton" are all lightvessel men. (*Mr. Owen.*) Do I understand she goes away with the Bahama relief, and comes back to Holyhead and takes the Selker relief on board?

5321. There is a circle of reliefs. A decent vessel could do them all in forty-eight hours?—I am inclined to think she takes the Selker relief with her when she goes to relieve the Bahama.

5322. She does not, or, at any rate, very seldom. I looked, and I found that on several occasions she goes over to Ramsey Bay, relieves the Bahama Bank, and goes back to Holyhead. It occurred to me, looking at that, why should she not make the relief of the three vessels in the same trip?—(*Sir George Vyvyan.*) We will inquire into that. (*Captain Clarke.*) She is a new ship, the "Triton," with a very fair speed.

5323. I did not know that. It is only about forty-six miles from Holyhead to the Bahama Lightvessel?—You will find there is some special reason.

Work of s.s. "Stella."

5324. The "Stella," from the 1st January, 1906, to the 19th March, 1906, was only twenty-nine days at work, as against fifty-one moored. She is in the Thames district. It means to say you have plenty of stand-by "Stella" is a very small ship, and she is not fit to do vessels, apparently, in the Thames district?—The the work that the "Vestal" is required to do.

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5325. Not outside?—No, she is only suitable for the inside work which she attends to.*

5326. How many days' average consumption of oil, water, and coal does a lightvessel carry?—I should say she could comfortably carry six weeks', but they are relieved monthly, therefore there is an ample margin.

Lightvessels: Method of supplying, with oil.

5327. I notice there is a great deal of work made in the supply of these vessels, in that you supply all your oil in casks, and in a great many cases water is supplied in barrels. Nowadays all the oil—and I suppose the quantity is sufficient to warrant it—in a supply tender might be pumped into the lightvessels? If our steamships were fitted with tanks it might be possible to do that under some circumstances, but sometimes the weather is so bad when those reliefs are made that it would be impossible.

5328. You could do that more easily when the weather was bad, because the tenders make fast to the stern of the lightvessels?—I do not think in actual practice that would be so. I have been at the relief many, many times; I do not think that would pan out in actual practice.

5329. But it would be an economy, do you not think, to fit the tenders with an oil tank for a supply of oil?—I do not think it would be an economy under the present conditions of our tenders to incur this expense.

5330. You do not think so?—No.

5331. Because everywhere else in the world it is found that it is an economy?—If one were building new ships it might be considered, but with our present ships, no

Steam-vessels: Time of, occupied in repairs.

5332. I notice the "Irene" was about the same time as the "Vestal" at Blackwall, and it also appears to me the average number of days under repair is very heavy for such steamers?—Under repair?

5333. I think the "Irene" returned an average of over forty days?—I think the work that our ships do in the relieving of lightships and attending to buoys and wreck-dispersing makes their repairs more heavy.

5334. It appears that your vessels are a longer time under refit and longer in dock than any coasting tender would be. Do you not think that is important considering you have to pay for the dock?—I think there is an explanation of that. That has been carefully considered by us, and we find it cheaper to allow the ship to remain a little longer in dock to do the work instead of paying overtime, which no doubt is often done in outside ships.

5335. Take an ordinary vessel. To clean and paint her bottom, examine her under-water fittings, and even withdraw her screw shaft—ten, twelve, or fourteen days is a very long time?—It would be, but we do not spend a penny in overtime, therefore we gain in the end; that is our opinion.

5336. Now I want to know why is the pay of the district superintendents charged to storehouses? It amounts in the year 1905-6 to £2,123. It is part of the general administration; it has no business to be charged to the storehouses, which are only depôts for stores; the superintendents have charge of their districts, and of the lighthouses, vessels, buoys and beacons in them. They are part of your official system?—(*Mr. Owen.*) But they have a headquarters and a depôt, and very many of them are residents, and therefore they are the superintendents of that depôt.

District Superintendents: Reason for charging, to District Storehouses.

5337. They are part and parcel of the depôt, but what they have to do with the depôt is a very minor concern compared with charge of the district. I think it is part of the system that you have for superintending the administration of the lights over the kingdom, and with the other Boards it is all charged to head office expenses; in Trinity House it is not?—(*Captain Clarke.*) With respect, it does not make much difference.

5338. It makes a difference of £2,123?—But does it make any difference to the General Lighthouse Fund whether it is charged to the one or the other account.

5339. I do not think that is the question. The question we have to inquire into is the administration of the Lighthouse Authorities. It is not a question of the Lighthouse Fund. That is why I am asking these questions. It is part of our particular business to do so?—I should think the pay of the superintendent is properly charged to the district, as the pay of the other employees in the district.

Distribution of Stores.

5340. I think I have asked you about the stores. We have had evidence that all your stores are first delivered at Blackwall, are they not?—I think it would not be right to say that of a very considerable portion.

5341. And then they are distributed to the district storehouses, and from there to the lighthouses. I want to know whether you have ever considered the advisability of inspecting stores at their place of origin, and packing them up and sending them direct to the lighthouses?—That has been done in several cases, but, broadly speaking, we have found it more advisable, and it is probably not more costly to do it at Blackwall.

5342. It used to be part of the Admiralty and War Office systems, but they are giving it up now, as they find direct action much more economical?—I think I am right in saying that that now is under the consideration of a Committee of the Trinity House specially appointed for dealing with it. They have made certain alterations, and they may, if they find it more economical and efficient, make further alterations. The question of efficiency is most important.

Head Office Expenses of Trinity House: Reason for excess of, over those of Scotch and Irish Boards.

5343. The next is the head office. If you take the head office expenses, I have compared those for the year, and you take the secretariat itself alone, the Trinity House has twenty-five members, the Irish nine, and the Scotch eight, and the expenditure, exclusive of the engineering side, is £13,441, £2,599, and £2,422. I want to know why the cost of your head office should be comparatively so much more

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* *Note.*—With reference to Questions 5316 to 5235, the Trinity House subsequently sent in the following statement:—"On referring to the log of the 'Triton,' which has now been returned to this House, it would appear that, in no circumstances does she ever effect the *monthly* relief of the Bahama Bank Lightvessel without on the same trip performing a similar duty for the other three lightvessels to the north of Holyhead. The particular trip which was apparently referred to in the Question No. 5318 was made on the *11th* January, and, as stated in the 'Triton's' log, was to convey to the Bahama Bank Lightvessel (which is 65 miles distant from Holyhead, *not* 46) a supply of coal and coke for the fog-signal of which she must have run short. Further, it is stated in the log that the 'Triton' left Holyhead at 9.15 a.m., and at 5.15 p.m. anchored for shelter in Ramsey Bay (with both anchors), the wind then being force 9 to 10, and that, at 9 a.m. on the following day, the weather having moderated, the 'Triton' ran out to the lightship, delivered 6 tons of coke and 1 ton of coal, and returned to Ramsey Bay, the weather being still unfit to proceed to Holyhead. I am further to state that the monthly relief of all lightvessels in this service commences regularly on the 15th of each month, weather and other circumstances permitting, and the procedure at Holyhead is as follows:—The Carnarvon Bay lightvessel is relieved separately, by which arrangement the four relieved members of the crew of this vessel are available for work ashore whilst the 'Triton' is away with the north reliefs, consisting of the other four lightships in the district. These vessels—*e.g.*, the 'Dee,' 'Morecambe Bay,' 'Bahama Bank,' and 'Selker,' are invariably relieved in one round trip. With this evidence before them, as contained in the vessels' logs, the Elder Brethren are unable to acquiesce in the statement "that she makes very slow work.'

"With regard to the 'Vestal' and 'Stella' steamvessels, to which reference was also made (Questions 5316 and 5324), I am to point out that the first three months of the year would of necessity be a comparatively slack time, the weather as a rule being unsuitable for performing work at sea, such as the shifting of buoys, renewing lightvessels' cables, and other duties peculiar to the Lighthouse Service.

"The Elder Brethren have, however, caused an analysis of the logs of these vessels to be made from 1st January to 30th November of last year (*i.e.*, the books which have been laid before the Royal Commission), and they find that from 1st January to 1st April the 'Vestal' was cruising 35 days, and was at Blackwall 55, and that, during the whole period under examination, she was 176 days cruising under weigh and 158 days at Blackwall in dry dock. For the same period the figures for the 'Stella' are:—Cruising (or under weigh a portion of the day) 161 days, and at Blackwall 172 days, 22 of which the vessel was under repair."

than that of the other Boards. Even if you take the £6,000 away it still gives you more than double the cost for your secretariat than that of the other Boards. Well, of course, I say, that, having larger sums to deal with, the percentage should be reduced, and it appears to me that if you look into the details, the number of clerks you have, and especially two very highly paid principals who get a maximum of £800 a year each, is comparatively very great; and I want to know whether it would not be possible to reduce the expenses of your head office in that respect?—(*Mr. Owen.*) What did you say, Sir, was the cost of the head office?

5344. I will come to the whole total, but your secretariat, as given in your estimate, the Elder Brethren, secretary, principals, four first-class clerks, four second-class clerks, four lower-grade clerks, duty pay, extra clerks, seven boys, and a typist, is £13,441—that is to say, you have got 25 members against nine of the Irish Board and eight of the Scotch Board?—That includes the remuneration to the Board.

5345. If you take the remuneration to the Board away it leaves £6,000, as against £2,500 and £2,400?—Yes. (*Sir George Vyvyan.*) Do you compare the work that we do?

5346. I know you have an excess number of lightships, but I do not know that there is any necessity for the excess number of very highly-paid principals and clerks?—(*Mr. Owen.*) There is one department we have which the Scotch and Irish Boards have not, and that is the Collection Account Department. We examine and correct all the detailed accounts of the collectors of light dues.

5347. Of the Customs?—Yes.

5348. You do that entirely?—We do that entirely for England, Scotland, and Ireland.

5349. You do the whole of that?—We do the whole of that; that is one department entirely; there are six all told in that department.

5350. You see a great part of your expenditure is fixed—that is, all the wages and allowances, the head office salaries, superannuation and control, and the amount for new works belongs to the engineer, so that really you have only got half the sum to deal with, so to speak, that requires any very serious expenditure on the part of the secretariat?—Well, there must of necessity be much more work at the Trinity House.

5351. Yes, but I am wanting to know whether it is not rather excessive on the part of the Trinity House; I can only take comparisons with the other Boards?—The reply to that is, the matter was fairly considered by the Board of Trade at the time. Whenever any increases of salaries have been agreed to the matter has been gone into very carefully by the Board of Trade by their own Departmental Committee, and they have not sanctioned them unless they thought they were fair and reasonable. Quite lately the staff has been reduced in number and the salaries increased, and they could not be reduced more at the time. (*Sir George Vyvyan.*) We found it was too much reduced, and we had to make it up again. (*Captain Clarke.*) We have much correspondence with the Colonial Office, the India Office and the Admiralty; numberless things are referred to us for opinion and advice.

5352. Which are not referred to the other Boards?—Which are not referred to the other Boards.

5353. I come to your Engineers' Department, which numbers twelve members—eight Irish, one Scotch. This does not include the Scotch Engineer's Office. The total expenses come to £4,022, Irish £3,036, and Scotch £1,930. There is a very considerable difference there again?—Again, it can only be considered that it is due to the manifold duties that our Engineer and his staff do as against the Engineers and staffs in the other Lighthouse Departments.

5354. You think that your excess of work justifies it?—Justifies it.

5355. Your excess of work. What is outside the others is due to your lightships?—Is due to our lightships and the various other Lighthouse Boards who consult us; the Admiralty also. We are carrying on experiments which we do in a measure for the other Lighthouse Boards.

5356. Working these things out on the estimates of expenditure for 1905-6, the total percentage is 8.5 Trinity House, 5.3 the Irish Board, and 6.1 the Scotch Board. That is the comparison, of course, of administration, and I think that that is correct.* And then there is another question which has to be added to that, the comparison of house and office expenses. Again I see that your office expenses are much heavier than the others; do you give any account for your head office expenses in your quarterly returns; do you give the details of your head office expenses?—Yes, we give the same particulars there that we do with the other districts. That is Abstract "E" of the estimates, and we give the same particulars quarter by quarter.

5357. Now if you work out on the same basis I did before, the head office and the house and office expenses, I see that the average comes to 9·7 for Trinity House, 7·5 for the Irish Board, and 7 for the Scotch Board?—(*Mr. Owen.*) It is a bigger establishment.

5358. You consider that your work is very, very much greater?—(*Captain Clarke.*) There is no comparison.

5359. But any great proportion of this work above that is extra, should it fall on the General Lighthouse Fund if other people come from the outside to you—should it fall on the General Lighthouse Fund, this extra expenditure?—(*Sir George Vyvyan.*) It is not for us to say, Sir.

Extraneous services of Trinity House: Repayment for,

5360. (*Mr. Ennis.*) May I interpose a question I wish to ask? I think we had evidence that you do work for Colonial people, and all that, and that you are paid for it?—(*Mr. Owen.*) There is a percentage charged.

5361. Is it taken into account?—It goes to the General Lighthouse Fund.

5362-3. (*Mr. Ennis.*) It is not credited in the office expenditure?—No.

5364. (*Admiral Henderson.*) You do not get anything from it?—No, it goes to the General Lighthouse Fund.

5365. The allegations that are made by outsiders amount to a question of suspicion, and you may understand that I believe that there is sufficient cause to give rise for their suspicions, because the accounts are not shown; it is very difficult even for myself to get them clear?—Otherwise you would not put the question; we quite appreciate that.

5366. Is there really a deduction on these head office expenses?—No, there is no deduction.

5367. No, but there should be a deduction?—Yes, I take it there should be, looking at it from your point of view.

5368. To show a true and faithful account there should be a deduction?—Yes, on all the work we do for other parties.

5369. That is what I wanted to get at?—Unquestionably. (*Mr. Owen.*) If Admiral Henderson will look at the General Lighthouse Fund Account for 1905-6 he will see on page 2 that the Trinity House is credited with a sum of £1,821 3s. 1d., and that includes percentages for extraneous services.

5370. Oh, yes?—I can only say that our accounts as rendered satisfy the Comptroller and Auditor General's Department. I am sure if we can satisfy them we should regard ourselves as being very fortunate.

5371. (*Chairman.*) I think the matter is quite plain; the Lighthouse Fund does not suffer, but in these accounts all these charges are placed to the head office account and not deducted?—That is so.

5372. (*Sir Frank Adam.*) When the form of accounts was prepared it was not with the view to a coming Commission of Inquiry?—No, that is so.

5373. (*Mr. Ennis.*) If the head office were to receive a credit of the amounts they received, it would make a difference in your charges?—I dare say it would; the General Lighthouse Fund would be no better off, and it would mean more staff to allocate it.

Lighthouses Abroad: Functions of Trinity House as to,

5374. (*Admiral Henderson.*) This question has been asked more or less before: What are the functions of the Trinity House with regard to the lighthouses abroad, and how do you exercise control over those at the Falkland Islands and the Bahamas?—(*Sir George Vyvyan.*) We have no control.

5375. You do not exercise any control at all; have you any engineering questions?—Yes, all engineering questions are sent to us, and we are at present at work at the Falkland Islands.

* This was based on a calculation of Admiral Henderson's.

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5376. Do you carry out any work there?—Yes, we carry it out.

5377. How do you do it; what does it mean, the engineering work?—We had an engineer there; he has just come back.

5378. You have not anything to do with the local control or management?—(*Mr. Owen.*) Not the slightest.

5379. It goes to the Board of Trade?—Undoubtedly.

5380. Therefore, strictly speaking, the only foreign lighthouse that you directly manage is Gibraltar?—(*Sir George Vyvyan.*) Yes. (*Mr. Owen.*) You were speaking of Falkland; the Falkland lighthouse was in a bad state, and the Board of Trade thought it the most economical and the most efficient arrangement to send out a skilled engineer, and they asked the Trinity House to lend one.

5381. I know that certainly by these returns one is rather inclined to think when all these extraneous duties are presented that you have something to say about their control; you have nothing whatever to do with it except Gibraltar?—(*Captain Clarke.*) Except Gibraltar, no.

5382. Therefore it does not affect your duties at all?—(*Sir George Vyvyan.*) Oh, no.

5383. Who does the Trinity House belong to—the Corporation?—Of the Trinity House.

5384. The Trinity House itself, the building?—Yes.

5385. It is the private property of the Corporation?—I suppose so.

5386. You never had any question about it?—We regard it as such.

Buoys: Charted and assigned positions of.

5387. There is a question I wanted to ask about the assigned and charted positions of buoys. I notice in the reports of the committees, I particularly refer to pages 430 and 431, that a large number of the buoys they say are in an assigned position or not in an assigned position, or so far from charted position. I want to know what your position is with regard to the charted or assigned position of buoys?—(*Captain Clarke.*) When we go away to check the position of buoys we find sometimes a buoy is in its assigned position, but it is incorrectly charted.

5388. That is the fault of the Hydrographer?—That may be the fault of the Hydrographer, or it may be when the surveyor was there the buoy was not in its assigned position, but as a rule the difference is so small that it is scarcly worth paying much attention to.

5389. You do not consider if the assigned position is not the same as the charted position it is a matter of importance?—We report all the important discrepancies to the Hydrographer.

5390. He alters it?—He alters it.

5391. The assigned position of the buoy is entirely in your control?—Yes.

5392. It is the Hydrographer's duty to make his chart correspond with the assigned positions of the buoys?—With where the buoys are, and the assigned position is for us to determine.

5393. It is true to say that for the two years between the inspections by the Elder Brethren, the local superintendent is responsible for the assigned position of the buoys and the lightvessels?—Is responsible for the assigned position of the buoy and the lightvessel.

Work of Committees.

5394. Why do you split the Acting Elder Brethren up into three committees, simply because having those numbers to deal with, to find distribution for the work?—(*Sir George Vyvyan.*) Four is the smallest number that two working committees ought to have considering their manifold duties.

5395. A great part of the work of these committees is reporting by one-third of the Trinity House members to the other two-thirds. In every committee most questions are referred to the Wardens Committee, or referred to the Lights Committee, or to the Examining Committee, or to the Board. It seems to me a very great deal of that work might be avoided, and is due to the existence of the committees?—It is only finance that is referred to the Wardens.

5396. Other committees have no power over finance?—No.

5397. Should not the Board itself have power over finance?—Yes, it has.

5398. Do you not think a good deal of the committees' work in this sort of way might be done by one man; I am speaking of the office work of the committees, I am not speaking of your inspecting work?—Well, it would be simpler.

5399. A one man show?—(*Sir George Vyvyan.*) I do not believe in a one man show.

5400. I want to ask Sir George Vyvyan if he were to reconstitute the Trinity House whether he would have thirteen managing directors?—I think I might certainly say without the slightest hesitation, if I had the power of creation, and these Boards came to me, they would not be as they are now. I think that goes without saying. I should not have men 80 or 90 years old. I have already said that I approve of superannuation.

5401. And you think really that if it were reconstituted the work of the committees of the Board could be done with less than thirteen directors?—Certainly it would be done with less than thirteen now, if the office were not for life.

5402. (*Colonel Herbert.*) As a matter of fact, it is done with less?—(*Captain Clarke.*) Yes.

5403. (*Admiral Henderson.*) It is done with nine. Do you think it could be done with less than nine?—(*Sir George Vyvyan.*) Why do you say it is done by nine?

5404. Because the other four are practically superannuated?—Only one.

5405. They are on the verge?—Oh, dear, no.

5406. You have only got one man now who is inefficient?—Only one. If you had said that nine years ago you would have been very near the truth.

5407. I only want to ask two more questions?—I am not the oldest man in the Trinity House; there are only two older than myself.

Medway: Maintenance of seamarks of,

5408. The Medway, is that lit and buoyed by the Admiralty?—(*Captain Clarke.*) Certain buoys at the estuary of the Medway are maintained by us at Admiralty charge, but the upper Medway is maintained by the Medway Conservators.

5409. The Admiralty do not take charge of the buoyage and lighting of the Medway at all?—No.

5410. In the number of buoys that you show in the list?—(*Sir George Vyvyan.*) Outside Sheerness.

5411. That includes all those you do for other services for which you get repayment?—(*Captain Clarke.*) Yes, other services for which we get repayment.

5412. The amount for these buoys is in this account?—Yes.

5413. You are really showing on this return more work than you do for the purpose of the Lighthouse Fund itself?—I do not think perhaps it is right to say that, because, without knowing much about it, I should think that the repayment is not credited to these buoys; it is on exactly the same system as doing the work that I spoke of before. I could not be sure of that without looking into the matter.

5414. Inquiring into these returns, here there is really more work paid for than actually appertains to the Lighthouse Fund itself?—Yes. (*Sir George Vyvyan.*) We appear at a disadvantage, as we maintain many other lights for the Admiralty.

Notices to Mariners:

5415. Notices to Mariners. The three Lighthouse Boards issue their notices, the Board of Trade issues a complete set of notices, and the Admiralty issues notices. I want to know whether you do not think there could be some harmony between them, and to get one authority, whether the Trinity House, the Board of Trade, or the Admiralty, as the case might be, to issue Notices to Mariners; would not that be a simplification and an economy all round?—(*Sir George Vyvyan.*) Prior to 1887 the Trinity House issued notices relating to lights, buoys, and beacons, etc., under their jurisdiction to all Custom Houses in England and Wales, and to certain other public authorities and private persons, besides extensively advertising them in London and provincial daily newspapers. These notices were afterwards reprinted by the Admiralty, and again distributed by the Board of Trade, in many cases to the same authorities. All notices, foreign and British, issued by the Hydrographer, other than those relating to lights and buoys, etc., belonging to the Trinity House, or the Scotch and Irish Boards, were also reprinted and reissued by this

System of issue prior to 1887.

Corporation. Copies of notices issued by the Scotch and Irish Boards were distributed by the Trinity House to selected Custom Houses in England and Wales. As a result of inquiry into the matter by a Departmental Committee, in 1887, the following amendments were made, viz.:—(1) Advertisement of notices in London daily papers (other than "Shipping Gazette") discontinued, except in special cases, and, where possible, then only in abbreviated form. Important notices also advertised in one or two good local papers. (2) Redistribution by Trinity House of Admiralty notices relating to foreign lights discontinued. (3) Distribution of Admiralty reprints of home notices discontinued by Board of Trade, and now done by the Trinity House, so far as affects those home notices which have not already been issued direct by a General Lighthouse Authority. (4) Copies of notices issued by English, Scotch, and Irish Lighthouse Boards sent direct by Trinity House to list of addresses to which reprints were formerly sent by the Board of Trade. By the above arrangements the duplicating and unnecessary distribution of notices which previously existed was avoided. (5) Monthly summaries of all notices, British and foreign, issued by the Board of Trade, through the Mercantile Marine Offices throughout the United Kingdom, "With every log-book for a foreign-going ship and to every master, owner, or agent of any other ship when paying light dues, or on application at the Mercantile Marine Offices throughout the United Kingdom." Copies of these summaries also sent to Governors of colonies, principal shipping officers and Consuls abroad. Supplementary summaries containing latest information are now issued weekly by the Board of Trade, in addition to the monthly pamphlets. Our notices are issued for those by the Board of Trade. I am eliminating the Navy altogether. The notices to the Navy are undertaken by the Admiralty for their purposes entirely, but between the Board of Trade and the Trinity House the Board of Trade issue monthly notices, which are compiled from the notices given out by Trinity House, with weekly supplements.

and subsequently.

5416. That means to say that the Trinity House issue instant notices, the Board of Trade monthly notices, supplemented by weekly notices, and the Admiralty daily notices; is not that it?—(*Captain Clarke.*) The latter mainly for the Navy. (*Sir George Vyvyan.*) Ours are daily notices, too.

5417. There is a good deal of waste of money in the business; some system might be devised?—We had a committee in 1887; before that we issued all notices. The Board of Trade commenced their monthly notices; they have continued that since. Our notices are issued to the Local Marine Board and the Custom Houses, and have been considered necessary; and I think it would be a very bad policy to give them up. (*Captain Clarke.*) We send them to pilots and the principal shipping companies also.

5418. Yes, but you would have those other notices which need instant notification, which cannot be given them to send. If one authority issued them, they might send as many as you issue now for you to distribute?—Would it be any saving if we issued the monthly and the fortnightly notices? (*Sir George Vyvyan.*) No, the Board of Trade issue them for nothing. (*Captain Clarke.*) I do not think it would make any pecuniary difference.

Observations on objections to certain lighthouses: Lundy.

5419. (*Sir Frank Adam.*) I wanted to go upon another series of questions altogether. It is with regard to evidence that has been put before us by different witnesses that have taken strong exception to the cost of certain lighthouses, and I thought I would ask you a few questions, to have your views with regard to the evidence that was given to us. First we will take North and South Lundy?—(*Sir George Vyvyan.*) Are you alluding to Captain Wentworth Wade's evidence; he said they were too high?

5420. Yes, he said: "For those lighthouses are on the solid rock, and then they took and put a bed of concrete down. I do not know what that was for, except it was to spend money, and they took and built these great big structures. We did not ask them, the lighthouses were quite high enough, taking the base instead of the vane, and things would have been much better if they had just simply put a light apparatus a few feet above the rock"?—I have brought a photograph of them. I think that disposes of the whole. We must have the lighthouses a certain height, in order that the weight may fall in order to revolve the apparatus. I do not suppose it is more than 6 ft. high. How Captain Wentworth Wade could have them lower than that I do not know. (*Exhibiting photograph.*)

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5421. I would ask you, with a view to its appearing in print—we will not be able to show the photograph—to answer me?—Well, they could not be built lower; they are built as low as they can be, having regard to the necessity for providing sufficient depth by the driving weight of the apparatus. And the expense is inconsiderable; it is only bricks and mortar at Lundy. We built it ourselves, because we found it cheaper; and also Beachy Head.

5422. Allow me to take them in order. The next one was Foreland, in the Bristol Channel, built at a very great height, and a considerable tower built up; he wanted to know why these immense structures should have been built?—Though you cannot put it into the evidence, if you would like to look at it, I will show you a photograph. (*Photograph produced.*) (*Captain Clarke.*) That is the Foreland, as low as it possibly can be. (*Sir George Vyvyan.*) And excavated out of the rock which was used in making the lighthouse. It is one of the most difficult we have had to deal with, and the lighthouse itself is as low as it possibly can be.

Foreland, Bristol Channel.

5423. You consider it was made as low as it possibly could be?—Yes. (*Captain Clarke.*) The lighthouse is actually lower than the buildings themselves.

5424. There was another; he referred to the lights on the Nash?—(*Sir George Vyvyan.*) I did not read his evidence.

Nash and Caldy Island.

5425. "We still have two lights at Milford, St. Ann's Head. We have two lights on the Nash; we have a high light placed on Caldy Island, up in the clouds almost, while a smaller light lower down would be a guide to the roads, and would be far more valuable"?—(*Captain Clarke.*) Those are all improvements that will come in the future. Caldy Island is an old light built in 1829.

5426. You admit improvements are possible?—And will come in time. (*Sir George Vyvyan.*) Well, whenever we are spoken to about a light, the first question is how far are we to see it—that is, what is the radius of the light. (*Captain Clarke.*) St. Ann's is now under consideration. (*Sir George Vyvyan.*) Does Captain Wade wish the Nash lights to be single?

5427. What he said was simply that there were two lights when one might be sufficient?—Yes.

5428. And I suppose that means the improvement which you say will be brought about? Then there was another question of Beachy Head. That, I think, you were going to refer to just now. Another witness, not Captain Wade, said that the lighthouse was built on an extravagant principle, and what cost £56,000 might have cost and yet provide an adequate light below the cliff about £20,000?—As an iron pile lighthouse?

Beachy Head.

5429. As an iron pile lighthouse?—It was perfectly impossible; the tower is practically double the height of the Maplin, which is an iron pile lighthouse, and if it had been built as an iron pile lighthouse with the radius necessary in that position it would have been much more expensive than the lighthouse is now.

5430. Was that carried out by contract?—We did it, and thereby saved £5,600.

5430a. I understand there was a good deal of extra cost, because you had to carry materials from above?—(*Captain Clarke.*) No, that cheapened the cost; it would have been more costly to carry them by steamer. It was done by a wire and carrier.

5431. (*Admiral Henderson.*) Might I ask whether there is land communication with the lighthouse?—Yes, at low tide.

5432. (*Chairman.*) Are there any particular criticisms that you have come across in the evidence, to which you would like to give a reply, besides those which have been mentioned? (*Sir George Vyvyan.*) I do not think so.

5433. I think one witness complained of the cost of your lightvessels, basing his criticism upon the length of them?—I will give you some figures I got from our surveyor. I have not been able to go through

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them myself. What was brought to me I have read. I had those figures taken out by the surveyor, the cost of a lightvessel number 75, that is our last lightvessel, as compared with the "Irene," as compared with a channel passenger steamer, as compared with a tramp steam vessel, a fast boat and a slow boat, all of which are actual ships.

Cost of different types of vessels.

COMPARISONS OF COSTS PER TON (GROSS) OF DIFFERENT TYPES OF VESSELS.

Ship.	(No. 1). Gross Tons.	(No. 2). Hull. Per Ton (gross).	(Nos. 3 and 4). Hull and Machinery. Per ton (gross).	Cost per *ton weight* of Hull.
		£ s. d.	£ s. d.	£ s. d.
No. 75 L. V. "St. Govan" - - -	250	31 18 0	46 0 0	22 15 0
"Irene" S. V. - - - - -	543	22 2 0	58 10 0	30 0 0
Channel Passenger Steamer - - -	996	23 18 0	52 6 0	33 0 0
Tramp Steamer - - - - -	270	24 0 0	34 9 0	24 0 0
Tramp Steamer (slow speed) - - -	520	13 9 0	19 14 0	16 0 0

Note 1.—No. 75 lightvessel is built 18 per cent. above Lloyd's rules, and to bring the other vessels up to the same footing £1 per ton should be added. In addition, the arrangement of hawsepipes, bitts, etc., involves an outlay of quite £450, which also should be added to the other vessels to put them on the same footing.

Note 2.—In the "Hull and Machinery" price of No. 75, machinery, lighting apparatus, anchors, cables, and sea outfit are included, in fact, everything, excepting ground moorings (mushroom and 150 fathoms of $1\frac{5}{8}$ cable), this being, in my opinion, equal to a steamer's machinery.

Note 3.—It will be seen that the larger the tramp steamer the less cost per ton.

Note 4.—I have worked out the total weights of hulls of the foregoing vessels; the results show that, on this scale, the lightvessel works out the next to the cheapest on the list.

Generally.—There is difficulty in getting a true comparison either of build, form of vessel, fittings, construction, etc., etc., with a lightvessel to that of any other vessel.

It is known that the recent lightvessels are not in any way constructed beyond the requirements of the service, and that keen competition has been the rule in getting prices, and it must be seen that under this system the vessels are cheaply built.

N.B.—If No. 75 lightvessel had the cost of the 18 per cent. above Lloyd's rules, viz., £1 per ton (gross), and the extra cost of fitment of hawsepipes, etc., £450, total £700, deducted for her cost of construction, the figures for the "Hull per gross ton" would be £29 2s., and for the "Hull and Machinery per gross ton," £43 12s.

I think that disposes of any extravagance, Sir; I will hand those figures in.

5434. (*Sir Frank Adam.*) May I ask, by what means did you arrive at those figures as regards tramps and channel steamers?—That is done by our surveyor.

5435. By taking the average of steamers, tramps and channel steamers?—No, this is a particular ship.

5436. In each case?—In each case.

(*Chairman.*) We are very much obliged to you for your evidence.

FIFTEENTH DAY.

Wednesday, 8th May 1907.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Mr. Donald Crawford, K.C. (Sheriff of Aberdeen, Kincardine and Banff), Mr. James A. Fleming, K.C. (Sheriff of Dumfries and Galloway), called in; Mr. C. Dick Peddie, recalled; and examined.

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5437. (*Chairman.*) Mr. Crawford, you are Sheriff of Aberdeen, Kincardine and Banff?—(*Mr. Crawford.*) Yes, Sir.

5438. And you and your colleague, Mr. Fleming, who is Sheriff of Dumfries and Galloway, are here to-day as the representatives of the Northern Lights Board?—Yes, Sir.

5439. I think you have had an opportunity of seeing the evidence which has been offered to the Royal Commission up to the present time?—Yes, we have seen a revise; we have not seen the appendices, which are rather important in the matter of figures, but I do not know that that will detract from any value of our evidence to-day. You see, for instance, Sir Thomas Blomefield gives evidence about the figures of the three different Authorities. They were almost all embodied in appendices, which we have not seen.

5440. You have also been furnished with some written questions to which we should desire to have your reply?—Yes.

5441. Perhaps the most convenient thing would be for me to begin with the different questions in order that we may get your answers on the minutes?—Yes.

5442. Do you think any important saving would be effected by substituting a single lighting authority for the existing system?—We do not think so. You see,

One Central Lighthouse Authority: Would not effect economy.

looking at what the money is spent upon, by far the greater part of it is spent on the maintenance of the lighthouses, the wages of the keepers, and the stores. And then another large head is new works, and perhaps a third head, if you chose to treat it separately, would be steamers, and then all that remains are the expenses of our office in Edinburgh, which is a very small proportion of the total. Now, we hope that there is evidence before you that the maintenance of the lighthouses—I take that first—is done as economically as it can be done, and in those branches, excluding for the moment office expenses, the expenditure—this is a question at present only of economy—the expenditure is controlled by the Board of Trade. We try to run the thing as economically as we can, but we are not allowed to spend a single shilling without the authority of the Board of Trade, and we are not allowed to spend a single shilling until the Board of Trade knows what it is for and approves of it. So that there is a complete central control, and in respect to the administration of the Lighthouse Fund, which is the life-blood of the whole system, that is entirely in the hands of a Public Department, the Board of Trade, directly responsible to Parliament, and the same authority for the whole three kingdoms. Then while it would not be conclusive to draw a comparison between our expenditure and that of the other Lighthouse Authorities, and we rather shrink from doing that, and for my part I have not got the figures myself very exact; but still I think when this question is asked it has a bearing upon it, and I think from the figures I have seen it will be found that our expenditure compares favourably—I might say very favourably—with the other two. Now assuming that the maintenance of the lighthouses, the new works which are so very carefully scrutinised, as you know, Sir, every year, and the steamers, assuming that they are as economically administered as they can be, all that is left is the maintenance of our offices in Edinburgh. I understand that that is something under £7,000. The whole expenditure of our office is thus less than the salaries of the Elder Brethren of the Trinity House, which is £7,000. We do not think that, supposing for any reason it were thought desirable over and above the pecuniary control to have a central administrative body sitting in London actually to spend the money, we do not think that centralisation could be carried so far as to dispense with a branch office in Scotland. You may compare it with almost any other branch of the public service, and you will find that such a branch office would be necessary. Very well, we think that the expense of our office, bearing in mind the fact that you get a directorate, which, whether good or bad, has a good deal of brain work in it, and it is the real directorate of the thing, because the Commissioners apply their minds even to the minutest details and are thoroughly acquainted with the service—I mean those who take an active part—well, you get that for nothing, and we think that as to the remainder the result would certainly be that a branch office would be at least as costly under any central system as our office is at present, because you get as I say the directorate for nothing. While we think that the evidence will show that the other branches of the service that I have mentioned are economically managed. The Board of Trade enforces very strict economy; and since the question is raised I am bound to say that in the matter of the office I think they have exercised not only a strict but a somewhat rigorous economy. The payment of our officers is hardly what we should like it to be. Our relations during all my time with the Board of Trade, which will be twelve years next month, have been exceedingly pleasant and friendly, and I think they try to meet us, but particularly with regard to the office the economy enforced upon us has been rigorous. I might point to the position of the Secretary, who is really general manager, and everything passes through his hands, although the Commissioners apply their minds definitely to every thing, and he in no way runs the matter; it is the Commissioners who run it; but his salary is quite inadequate.

5443. Do you think no economy could be effected in the matter of the purchase of stores if a central authority were established?—No, we do not think so; we have considered that. (*Mr. Fleming.*) The total stores come to £15,000; of these, coals account for £6,500, oil for practically £2,000, fresh provisions £3,000, and the general store, upon which possibly a saving might be effected by one contract for the whole three services, amount to under £3,000. The highest amount for any one article of those is cotton waste £319, and our view is that the matter is so small that, considering the difficulty and the expense of carriage from the contractor to these different places that there is no room for any economy of any substantial amount. (*Mr. Crawford.*) Mr. Fleming knows more about that than I do; but all that I do know about it personally is that we go into that carefully. All the stores, of course, are got by contract, and both in the matter of contracts for coal, for instance, and oil, the Commissioners take the greatest pains. As a rule, of course, we take the lowest tender, but we take great pains about the selection of the people who are invited to tender, and in rare instances, where by experience we have found out that the very lowest is not the best, we depart from it, and take one we know. That is very exceptional indeed, but great trouble is taken in settling those matters.

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5444. In short, I take it as your answer that neither in the purchase of stores nor in any possible reduction of head office expenses, nor in the matter of uniformity of administration, is there any substantial economy likely to be produced by a centralised management?—That is our opinion, Sir.

General Lighthouse Authorities: Communication between,

5445. (*Admiral Henderson.*) That would be as far as the Scotch Board is concerned, of course?—That is all we can speak for. With regard to uniformity of administration, in some important respects there is complete uniformity. For instance, the pay of the lighthouse-keepers; we always work together with the other two Authorities, and the pay of the lighthouse-keepers is identical—practically identical.

5446. (*Chairman.*) I think not long ago you sent your superintendent to London in order to study the methods of Trinity House, did you not?—I believe we did; yes. (*Mr. Fleming.*) We did, Sir. (*Mr Crawford.*) And he visited some of the lighthouses, I know.

5447. Did you obtain any useful hints from his visit?—I do not remember. The Secretary will tell us better. I do not remember that there were any innovations introduced owing to that, but we are always on the alert to learn anything from the other Boards, and I rather think, in the matter of scientific inventions, and so on, that the Boards have derived benefit from each other's experience. We always endeavour to be in touch with them, particularly with the Trinity House.

Advisory Committee: Deprecated.

5448. I proceed to the next question. Will you tell us whether, in your opinion, the Advisory Committee has worked well. Would it be a practicable plan to do away with the Advisory Committee, and provide that representatives of shipping and other interests should be placed on the Lighting Authority itself?—Well, frankly, Sir, we do not think that the Advisory Committee has worked well at all. Our own intercourse with it has been at the annual meetings only. I have been, I think, at about three, and Mr. Fleming has been at several. At some of those you were in the chair, Sir. In the evidence which I have read it is stated, on behalf of the Board of Trade, that they have derived benefit from their advice, and of course I do not know what communications have passed between the Board of Trade and the Advisory Committee; but the only occasions that we meet them are once a year in conference at the Board of Trade. Now, I do not think that those conferences, so far as we are concerned, contributed anything to the public service or to the despatch of business. The proceedings were not deliberative at all, as we think that the controlling authority of a public business like this ought to be. They consisted of an attack always, and we had to stand on the defensive. It may savour of exaggeration, and perhaps the statement, speaking only from my recollection, may be somewhat exaggerated, but according to my impression of the Advisory Committee, although no doubt it is composed of men of eminence in business, the way they looked at their duties was that they practically objected to everything that we proposed. The remark, I do not know whether it is reported, but it was made several times in my hearing, was this, they said, "This is our money, and we ought to have the spending of it." Well, that is not our view. Of course, I am not here to argue that question, but they practically objected to everything, and I see in the evidence that out of twenty-four proposals of ours to which they objected sixteen were eventually passed as being desir-

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able and necessary, and I understand that the remaining eight were not condemned but merely postponed. And I do not remember—perhaps my friend and colleague may correct that—I do not remember anything that they proposed which we had overlooked except perhaps a light and fog-signal on the Holy Island outside of Arran which we had considered, but we did not think was necessary to navigation, although it was quite true that certain lines of ships belonging to members of the Advisory Committee could save a very little distance by taking a short cut which would bring them close to the Island of Arran, but that for the safety of navigation that light was not required at all, and it was an expensive work. However, that was our only objection to it and that light was carried out, and it is now in existence.

5449. We had evidence from the Trinity House that in the first instance there had been a certain amount of friction between them and the Advisory Committee, but that matters had improved of late years?—I think, as far as actual friction goes—I have not been myself I think, at the last two, but from what I understand —I think we should quite confirm that, as far as the pleasantness of the proceedings goes, but not otherwise.

Abolition of, advocated.

5450. Well, Mr. Crawford, as to the second part of my question: Would it be a practicable plan to provide that representatives of shipping and other interests should be placed on the Lighting Authority itself?—Well, Sir, with regard to that I think you have some questions further down, where perhaps I could answer that more fully. Our general position, however, is this, that whether such representation would be practicable and advisable it is for the Commission and for Parliament to decide, but we should like to see the Advisory Committee done away with.

5451. You would like the Advisory Committee definitely done away with?—Yes; I think we should certainly. As to the words, "and provide that representatives of shipping and other interests should be placed on the Lighting Authority itself," Mr. Fleming and I are not empowered to make any suggestions as to the constitution of the Board or improvements on it. But I may say that this question had been raised before I became a member of the Board, twelve years ago. Its constitution was fixed in the eighteenth century, and very likely if it were started now for the first time it might not be constituted in exactly the same way. We have always been perfectly open, without making any definite proposals ourselves, we are quite open to the idea that our Board might be improved by putting on it representatives of the shipping interest, such as shipmasters and shipowners, for the sake of their practical knowledge. It is for the Commission to judge. We do not honestly think that the practical result would be one whit better or that a penny would be saved, but if for the sake of theory, or for the satisfaction of public opinion, it were thought desirable to put on representatives, I do not think that our Board (of course they have no right to oppose it) would object to it in any way.

Northern Lighthouse Board: Representation of shipping community on, not opposed by Board.

5452. I quite understand, and that by anticipation answers to some extent question No. 3, but I had better put question No. 3 in order that you may supplement what you have already said. Has your Board itself any suggestion to make for amending its own constitution, or altering the relations at present subsisting between it and the Trinity House, or generally for modifying the present arrangements for lighting the coasts of the United Kingdom?—Well, Sir, we are not empowered to make any suggestion for amending our own constitution. I will come to the Trinity House immediately. I do not see in the evidence given a detailed statement of our working, and it might be perhaps useful if I stated what that was. The Board consists of 25 members. Ten of those are representatives of shipping towns, and are members of the Town Councils of these towns; they are elected at intervals of three years, the Bailies for one year—that is, ten. Then there is the Lord Advocate and the Solicitor-General, and there are 13 Sheriffs; 13 out of the 15 Sheriffs in Scotland. There are 15 Sheriffs in Scotland, and every Sheriff who is Sheriff of a county with a seaboard is *ex officio* a member of the Board. In consequence of the large seaboard of Scotland, and that most of us are Sheriffs of more than one county, 13 out of the 15 are qualified. Now, as to the attendance of these members. A considerable number of the municipal members practically never attend. It can hardly be expected. There is the Lord Provost of Aberdeen, the Provost of Inverness, and the Provost of Campbeltown; the Lord Provost of Dundee and the Provost of Greenock; practically they never attend. The Lord Provost of Glasgow, I may add. Glasgow and Edinburgh have two muncipal representatives, the Provost and the Senior Bailie. From time to time naturally, as these gentlemen—the Bailies only last for a year—their attendance varies, because one man will take more interest in the work than another, and it has not infrequently happened that the Senior Bailie of Glasgow has given a pretty fairly regular attendance. Then in Edinburgh it naturally varies too. We have had Lord Provosts who gave a useful attendance. I remember particularly Sir Andrew McDonald, who was Lord Provost when I was first appointed to the Board, and sometimes the Senior Bailie is pretty regular too. The Provost of Leith has generally been a pretty regular attendant, and a useful member of the Board, and that is a very good thing, because, of course, Leith is a very considerable seaport. The reason is that the Provost of Leith is very often re-elected for another term of years. The present Provost has been seven years in office, and he is an exceedingly active and useful member of the Board, and is at present our Chairman, an office which we take in rotation. Then coming to the other members, the Lord Advocate and the Solicitor-General, the two Law Officers of the Crown, they practically never attend. The only exception has been very recent indeed—namely, the present Solicitor-General, Mr. Ure. When he is in Edinburgh he generally comes, but of course his other duties, parliamentary and otherwise, make his residence in Edinburgh very rare, so that it is hardly an exception, and you may say that the Law Officers do not attend. Then you come to the 13 Sheriffs. The Sheriff of Lanarkshire, who is resident in Glasgow, is an exceedingly busy man. It is hardly possible for him ever to attend. That reduces the number to 12. The Sheriff of Ayr, Mr. Brand, is also Chairman of the Crofters Commission, and is, I am sorry to say, in very bad health; he cannot attend. That reduces the number to 11. Now, of the 11 Sheriffs, a large proportion attend, many with perfect regularity, I may say, and others with considerable regularity. I think you have got statistics about that, to which I would refer. And the way the thing works is this; as far as the Sheriffs are concerned, there are always four or five who are very much interested in the work, and have had a good many years experience of it; and as one can without much difficulty suppose, the work is rather of an attractive nature, and as junior Sheriffs come in they, as it were, enter on their apprenticeship. Four or five have been at it actively for years; the younger ones are put on committees and initiated into the work as soon as possible, so that there are always some seven or eight who take very strong interest in the work. Half of those are Sheriffs who have been at it for a long time, and others who have been at it for a shorter time. They all take a great pleasure in personally acquainting themselves with all the details, they know all the lighthouses, they go round and know a great many of the men; are thoroughly conversant with the policy of the Board, which has been continued for a great many years; know everything about our relations with the Board of Trade, and so on; and, in fact, are as minutely conversant with the work as it is possible for any body of directors to be.

Description of constitution of,

Attendance of members.

Sheriffs: Duties of,

5453. Are most of the gentlemen of whom you are now speaking resident in Edinburgh?—They are all resident in Edinburgh. The Sheriff Principal must reside in Edinburgh, except the Sheriff of Lanark at Glasgow. He is supposed to be in attendance on the Courts, and he can practise if he likes, except the Sheriffs of Lanark and the Lothians. The official corresponding to the County Court Judge is resident. For instance, I have three Sheriffs Substitute in my counties, but I as Sheriff Principal have to reside in Edinburgh. Then as to the qualifications of the Sheriff, it is impossible not to advert to a very natural observation often made outside, that we are all lawyers. Well, so we are, but the Sheriffs are all men of considerable experience. They have been and are in practice at the Bar, some in very large practice, and others much less so. Out of the thirteen judges, more than half have been Sheriffs. A man in practice at the Bar has to make himself acquainted with, and has to learn, the art of dealing rapidly, and acquainting himself thoroughly with a great variety of public business. Then besides that there are our duties as Sheriffs.

It is true that the part of our duties which occupies most of our time is the judicial part, mostly as the Appeal Judge from the Sheriff Substitute, whom I have described as a County Court Judge, but theoretically at all events the more important part is the administrative part, which is quite separate. The Sheriff is the principal Crown Officer in the county next to the Lord Lieutenant, and in virtue of that he has a definite precedence assigned to him next to the Lord Lieutenant. He is responsible for the peace of the county. If there is a riot, he would have to go down and take the lead in putting it down, and within the last 20 years that has happened several times in the Crofter riots in the West coast. Then he is head of the police in the county. If there is a difference of opinion between the Police Committee of the County Council and the Sheriff, the Sheriff's orders must prevail, though there is an appeal to the Secretary for Scotland. Then he has various administrative duties which he must perform personally. For instance, if a borough wants to enlarge its boundaries, the Sheriff Principal must do that; must settle it. If a district wants a water scheme, the Sheriff Principal must settle that; he cannot delegate it to one of his substitutes. And there are other things which at a pinch we can delegate, but which we do not often do. For instance, I am Returning Officer for six divisions, and we are Revising Barristers. We in short do a great deal of miscellaneous administrative work, and even our judicial work brings us, being maritime Sheriffs into contact with business which is quite germane to the business of our Board. For instance, in Aberdeen I have a great many shipping cases to decide; collision and all sorts of shipping cases; so that in short it is for the Commission and others to judge, but as practical business men I think the Sheriffs are very well qualified to conduct this business.

5454. Would you kindly refer to Question 1,300?—Yes.

Membership of Northern Lighthouse Board *ex-officio*.

5455. The object of Question 1,300 was to ascertain whether, when a Commissioner had been co-opted, he remained a member of the Board for life?—Well, Sir, that refers to a state of things that is long before my time. That is to say, I understand that a great many years ago, and it may be statutory still, the Board had power for instance if we wanted to add to the municipal representatives, besides the Provosts of Inverness, and so on—supposing there were some other seaport became important—to co-opt a representative officially into the Board. That is the whole meaning of that power.

5456. That does not refer to the Sheriffs at all then?—No, I think the Sheriffs are now settled by Statute.

(*Mr. Fleming.*) Perhaps you will allow me to answer, Sir. By the 1854 Act, certain Sheriffs were named, with power to assume other Sheriffs of maritime counties. That power was exercised, but when the 1894 Act was passed, by inadvertence several of those Sheriffs were omitted from the Act. Those Sheriffs have since been assumed, but either by the 1894 Act or by assumption since, all the Sheriffs of maritime counties are now on the Board; we have treated them not as individuals, but as holders of the office; the office is assumed, not the individual.

5457. Then if the Sheriff of a county abutting on the coast were transferred to an inland district, would he cease to be a member of the Board?—Yes. There was a case of that sort quite recently. The Sheriff of Inverness, Sheriff Johnston, was transferred to Perthshire. He ceased to be a member of the Board. His successor as Sheriff of Inverness became a member of the Board in his place. (*Mr. Crawford.*) There are only 15 Sheriffs altogether, and two are not members of the Board. (*Mr. Fleming.*) The provision is Section 668, Sub-section 3, of the Merchant Shipping Act, 1894. "The Commissioners may elect the Provost or Chief Magistrate of any Royal or Parliamentary burgh on or near any part of the coasts of Scotland and the Sheriff of any county abutting on those coasts to be a member of their body."

Constitution of Northern Lighthouse Board: Large numbers cause no inconvenience.

5458. One of the criticisms passed upon the constitution of the Scottish Board has been that the numbers are too large, and that, as you have told us, a good many of them never attend?—(*Mr. Crawford.*) That is true.

5459. Do you think there would be any advantage in allowing the Board to select certain of its members to be an Acting Board, somewhat after the fashion in which Scottish representative peers are chosen?—It is a novel suggestion to me, Sir. Of course, the duty would be a so newhat invidious one, I am afraid. Of course, any suggestion of the kind, coming from you, would receive our best and respectful consideration. One thing we should probably say is—it may not be a complete answer, because the objection is that the system does not look well outside, but the thing settles itself. There are a certain number who always act, and there are others, as I have tried to describe, who do not.

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5460. And that does not give rise to any practical inconvenience?—None whatever.

5461. The Board are not liable to be flooded at any given moment by members who do not habitually attend?—No, the only case—it is the sort of thing that might happen—I think perhaps there might be rather a larger attendance if there was one of the more important posts in our gift, such as the Secretary, to be filled up; probably we might expect rather a full attendance when that took place, but I am not quite sure that it did happen. The only instance in my time is some years ago. (*Mr. Fleming.*) Yes, there was rather a larger attendance than usual. (*Mr. Crawford.*) But that, I think, might almost be left out of account.

5462. So that in your judgment the excessive numbers of the whole Board compared with the numbers that actually attend does not give rise to any practical inconvenience?—Oh, I should say that with every confidence.

Control of Trinity House over Scottish Board: Deprecated.

5463. Perhaps you will kindly now proceed to the second part of the question, Mr. Crawford?—Yes, Sir, whether the Board has any suggestion to make for altering the relations at present subsisting between it and the Trinity House, or generally for modifying the present arrangements for lighting the coasts of the United Kingdom. Well, as to Trinity House, our relations with the Trinity House, I am glad to say, have been most agreeable and thoroughly cordial, but when we are asked this question I cannot help saying that we think that the present relation between the two Authorities is not quite sound. The Trinity House claims a considerable control over our operations in erecting seamarks, and I think it is in evidence, in Mr. Dick Peddie's evidence, how that arose, or, at all events, the date of it. I think it was in 1836 that they got a right which is expressed in a certain clause, the terms of which I do not remember, which authorised them to interfere and to exercise some control over the proposals of the Northern Lights Board in erecting seamarks. Now our view is that at that time, when there was no supervising authority over the whole three, like the Board of Trade, it was a very reasonable thing that where the proposals of the English and Scottish Authorities clashed, as it is perfectly likely they might do, there should be some means of deciding the question, and that it was by no means unreasonable that the larger Authority should be invested with that power. There is some difference of opinion, I think, as to whether that was intended to go further than to provide for an actual clashing of the two Authorities where their limits approached each other, or whether it meant that the Trinity House were to exercise a wider control right round the coast of the island, and that view no doubt is arguable and defensible because uniformity is desirable, the uniformity of system. But then we think that when the authority of the Board of Trade was established in 1853 the necessity for the control of the Trinity House over our work ceased, and that it is not advantageous that it should be continued, because it is impossible, we think, that the Trinity House should be so well acquainted with the wants of our coast as we are ourselves. Probably theoretical questions may be urged to the constitution of both Boards, and it may be said that the Trinity House contains more practical men than we do; but, on the whole, we submit that they are not better qualified to exercise a general control and have no more substantial right to it than we have, and that uniformity and everything that is really wanting is secured by the complete and active control of the Board of Trade. We have an appeal from the decision of the Trinity House to the Board of Trade, and there have been a very considerable number I believe in which ultimately we were found to be right when we asked for a thing. If the Commission desires the examples I think the Secretary will be able to furnish them. I believe a statement has been put in about that so we should propose that the Trinity House and we should be put on the same footing with

Appeal from, to Board of Trade.

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regard to authority. We are quite satisfied with and welcome the general supervision of the Board of Trade, and that it is a very effective one, because they have the entire power of the purse, and we think that is entirely desirable, and that it is a sufficient supervision.

5464. Has it been the case that of late years the Trinity House has not been satisfied to consider any scheme submitted to them by you as regards the principle of that scheme, but has further required you to furnish minute details of expenditure in connection with the scheme?—I think that such cases have occurred within the last eight years, but that has been a sort of debatable ground, I think, between the Boards for a long time. The statutory power of the Trinity House up to a certain point is incontestable, but we thought that they had no right to interfere in financial details, and I understand that they rather maintain that they have.

Nature of,

5465. But they have not, as a matter of fact, insisted on seeing your schemes worked out in detail before giving their sanction?—The total expense only, not the details.

5466. So that in effect as regards their relations with you when their sanction is asked for any scheme, their decision is given upon general questions of principle, and not of detail?—Yes, I think so.—(*Mr. Fleming.*) Well, Sir, I think that a misapprehension arises from not noticing the words "minute details" in your previous question. For instance, in the case of Tod Head they certainly demanded information regarding the cost of the works which we declined to give, but which, I think, we ultimately *ex gratia* gave them. Since then they have had from us an estimate, a rough estimate, but a fairly close estimate, of the cost of the work, so that they might judge of the description of the class of work in respect of cost. In other words, they have claimed a general financial control over us in every case. They have not asked for minute detail; we have given them a general estimate. They have done it in this way constantly, and, I think, when you were in the chair this sort of question came up: we proposed to put up a lighthouse, a first-class lighthouse; the answer was, "This will cost £12,000, which is far too much. Put up an unattended light which will cost £500 or £600, and that will do." That is the sort of way they have exercised their control. (*Mr. Crawford.*) That sort of thing is frequent.

5467. A decision of that kind by the Trinity House, would, to a large extent, rest upon the question of principle. It would be the character of the light with which they were concerned?—(*Mr. Fleming.*) They agreed with our view that a light should be established there, that a seamark was wanted, and that there was a danger there which should be marked. They did not agree with our view that in carrying that out into practice it was impossible to do it except by an attended lighthouse with residences for the keepers. The difference between that and the unattended lighthouse makes a difference in cost. There is an instance of that quite recently, the proposed light at Neist Point; and there is another instance in the case of Bressay, which is at the entrance to Lerwick, where we proposed to put up a fog-signal. They agree in principle that a fog-signal is wanted there, but they say that a reed signal is quite enough; the difference in cost being, I think, the difference between £3,000 and £4,000. Our view is that their own experiments at St. Catherine's show that a reed signal would not carry sufficiently far outside the entrance to that channel to make it useful. We must have a signal which would enable the navigators to pick up the entrance outside before they are in danger.

5468. It comes to this, does it not, that the interest of Trinity House in the case of any scheme is limited to the bearing of the cost upon the general character of the seamark to be put up. If, for instance, it was a question between an important lighthouse and a minor light?—I think not, Sir; take the case of Rhu Rhea.

5469. That would involve a question of principle?—The principle was that a light should be established there; we were agreed on that point, but the position they took up was that an unattended light would be probably sufficient to mark that danger in these waters, and would cost much less. Our view was that an unattended light was not sufficiently powerful for these waters, and a further difficulty was that from the configuration of the land, from the inaccessibility of the point it was impossible to trust to an unwatched light. There was no person near enough to attend to it, therefore we had to have an attendant, therefore we had to have two, as our consistent policy has been never to leave one man alone; therefore we had to have houses, and at once you have the cost of the full establishment. The difference between us there was entirely, I think, a question of cost. I do not know whether you know where Rhu Rhea is, Sir, it is on the mainland north of Skye.

5470. You would prefer to be freed from the control of Trinity House altogether, I take it, but if that was not done you would then rather that that control extended only so far as the necessity of some proposed seamark was concerned and should not extend to the character of the seamark or the cost of it?—That is so, our view, of course, being that when the Board of Trade control was established in 1853 or 1854, the necessity for having one superior authority to settle questions arising between the three Boards was gone, and we do not see quite what the Trinity House has to do with the characteristics of lights in Orkney and Shetland, for instance, and we do feel that it is anomalous that one spending department should have a financial control, however slight it might be, over other claimants on the same fund, although of course I do not mean to suggest for one moment that Trinity House have been actuated by any feeling of that sort.

Anomaly of,

5471. It has been contended that the Northern Commissioners suffer from the absence of nautical advice, and it has been urged that the control of Trinity House to some extent makes good that deficiency; what is your view on that subject?—(*Mr. Crawford.*) Well, Sir, I do not think we suffer practically from it, but it has often been suggested that our Board would be more complete if we had a nautical adviser; if a nautical adviser were added to our staff. In practice I do not think the want is felt. It so happens that, for instance, our Engineer has a very minute knowledge of nautical matters all round the coasts; he is in the third generation of Engineers to our Board and the fourth in succession, for his uncle was, and his father was, and he has been bred up in it, and he has a thorough acquaintance with the coast. Then we have very experienced and very intelligent masters of our steamers. The master of the "Pharos," our principal steamer, whose father was also a master of one of our steamers, and Captain Harvie, the master of the "Hesperus," and our other two masters; we have very great confidence in their nautical knowledge, and practically, we do not think that we suffer from the want of a nautical assessor. At the same time, I think we should be very glad to have one. I think he would need to be a paid assessor; I do not think a retired sailor on the Board, perhaps, would serve the purpose. It would be difficult to get one—a qualified one who would attend quite regularly—and I think that a paid assessor would be a preferable solution. We do feel rather acutely that it is abnormal and not desirable that we should be under the Trinity House in the way that we are.

Appointment of Nautical Adviser to Scottish Board would remove need for,

5472. I suppose you have not considered the principle of Mr. MacArthur's Bill and the suggestion which has been made before us that the existing Lighting Authorities should be swept away altogether and a Government Department substituted for them?—No, Sir, we have not considered that proposal at all.

5473. Have you anything else to say with reference to Question 3?—No, nothing more on Question 3.

5474. Then I come to Question 4. Will you kindly furnish the Commission with your observations in detail upon the statements made by Mr. Norman Hill in answer to Questions 1802 to 1834?—Well, I read those questions carefully, and I could, I think, give a general answer of a satisfactory kind, but they involve figures so much and the Commission desired the presence of our Secretary; I would ask you to put that question to him, he is fully prepared to answer it.

Observations on statements of Mr. Norman Hill.

5475. Yes, by all means?—As my friend Mr. Fleming reminds me, the general answer undoubtedly is very great increase in the service of the number of seamarks that has to be served; that accounts for the increase in the expense.

5476. Do you think that is a sufficient explanation?—(*Mr. Fleming.*) We do; it comes out in figures which the Secretary will give you as quite a sufficient explanation.

5477. I will ask you, Mr. Dick Peddie, some questions with reference to figures put in by Sir Thomas Blomefield. I see that under the heading of "Maintenance of Lighthouses," the average annual expendi-

ture for seven years ending 31st March, 1899, on pay and allowances of staff, including provisions, amounted to £13,571; that figure increased in the subsequent seven years to £16,654; could you give us any explanation of the increase?—(*Mr. Dick Peddie.*) Entirely the increase of the service, I should say, Sir, the details of which I can supply to the Commission.

5478. Arising out of the added new works?—The added new works. I prepared them in the order of Mr. Norman Hill's questions; as a matter of fact, they will all come out in reply to the figures stated by Mr. Norman Hill in his evidence.

5479. Then I will ask you the question I put to Mr. Crawford. Will you kindly furnish the Commission with your observations in detail upon the statement made by Mr. Norman Hill in answer to Questions 1802 to 1834?—Well, Sir, I may perhaps be allowed to refer first of all to Question 1796, because there is a slight error in the figures stated by Mr. Norman Hill which may be corrected. As regards the Northern Lights Commissioners, the figure should be that the total expense has increased from £83,576 to £92,247, instead of from £82,964 to £92,247, an increase of 10·4 per cent. instead of 11·2 as stated by Mr. Norman Hill.

5480. You are taking the six years ending in 1905?—Yes, Sir, the two periods of six years taken by Mr. Norman Hill, 1893-4 to 1898-9, and then from 1899-1900 up to 1904-5. Then, Sir, I do not know whether the Commission desire me to deal with Questions 1802, etc., which touch on the Report of Lord Courtney's Committee?

On increase of average annual expenditure.

5481. I think we have already had some evidence on that subject, either from yourself or from Mr. Stevenson?—From Mr. Stevenson. I think it is quite clear on reading the report of the Committee's proceedings and the statement put in by the Commissioners exactly what their position was. Then, Sir, in answer to Question 1808, Mr. Norman Hill makes certain comparisons. He includes new works, and he brings out that the average yearly expenditure in a comparison of the two periods has increased by 12·8 per cent. Now, Sir, as far as the Northern Lighthouse Board is concerned, the apparent increase is £10,440, or 18 per cent., but for comparative purposes there falls to be deducted a sum of about £1,450 in the latter period which in the first period was charged to new works, being the commission of the Engineer and the salary of an inspector of new works apparatus. Sir Thomas Blomefield has already pointed that out, I notice, in his evidence. Making that necessary deduction, the increase in this service is 15½ per cent. Mr. Norman Hill goes on to compare the average of the six years in the first period with the last year of the second period. This, I would submit, is hardly a fair comparison, but making it, the increase in Scotland is nearly 22 per cent. But if, Sir, you compare the last year of the first period with the last year of the second period, which the Commissioners think is a fairer way of doing, the increase in Scotland is only 4·7 per cent. That is after an interval of six years.

5482. But you are taking single years, not an average of years, then?—Mr. Norman Hill takes an average of the first six years, but he takes the last year of the second six years.

And the causes of that increase.

5483. But if you take the average of the first six years and compare it with the average of the second six years, what is the figure?—The figure then, Sir, is 15½ per cent. Now, Sir, in answer to Question 1809, Mr. Norman Hill states that he knows of no reason for the increases, and I have prepared a statement of the number of new seamarks, etc., established by the Commissioners in the second period or at the very end of the first period, and the charges for whose maintenance actually fell in the second period. Now, Sir, there are seven fully-equipped lighthouses, ten fog-signals, of which eight are sirens, and two explosives, there are seven minor lights attended, there are 21 additional light-keepers and seven minor light attendants, there are seven gas beacons, 13 gas buoys, one gas work, one steamer, and one pier and storehouse at Stromness. The percentages of increase are in lighthouses from 72 to 79, or 9·8; in fog-signals from 19 to 29, or over 50 per cent.; in minor lights from three to nine, or 200 per cent.; in regular light-keepers from 183 to 204, or 11½ per cent.; and in minor light attendants from three to nine, or 200 per cent. The gas beacons increased from 7 to 14, or 100 per cent.; the gas buoys increased from 14 to 27, or nearly 100 per cent.; the gas works are now three instead of two, steamers four instead of three, and storehouses two instead of one, all of which, Sir, the Commissioners think shows an increase which more than justifies the increased cost of maintenance in the last six years.

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5484. You think those additions, compared with the total number of previously-existing seamarks, represent at least an addition of 15 per cent.?—In our service, Sir.

5485. Yes?—Oh, at least.

5486. At least, so that having regard to the circumstances you mention, it would appear that there was rather a saving than an increase of expenditure?—Well, I should be inclined to say there was.

5486a. Relatively speaking?—Yes. There is one other figure which I might give, the appositeness of which depends to a certain extent on the extent to which the other Services have increased in the same time. The Commissioners believe that they have not increased to the same extent as ours, and if you compare the increase of expenditure, excluding new works, in the Northern Lighthouse Service with the total increase, excluding new works, over the whole three Services, the percentage for our Service is under 3 per cent., and that is less than in either of the other Services.

5487. (*Admiral Henderson.*) Do you know what it is in the others; what the increase is in the other Boards?—On that basis, Sir?

5488. Yes?—Yes; the Trinity House is 4·85, the Irish Lights is 2·97, and the Northern Lights is 2·94, or less, if the sum of £1,450 already mentioned is deducted.

5489. (*Chairman.*) Have there been any other circumstances tending to unavoidable increase of expenditure?—Nothing, Sir, I think. Of course, there have been the ordinary increments of salary. As we are situated in the head office at the present, almost without exception, the officials have been a very long time in the Service, and are all approaching their maximum.

5490. That is a matter of chance?—A matter of chance entirely; that will drop back, but it does represent in the six years an average increase of £450. I think the ordinary yearly increments are about £140, but that of course will rectify itself.

5491. Has there been any increase in the price of coal?—Yes, and in addition the consumption has been enormously increased. For instance, I may say the average steaming of three steamers in the first six years was 29,790 miles per annum; in the second six years it was 38,700 miles for four steamers; last year it was about 45,000 miles.

5492. So that the average work done by each steamer has been steadily increasing each year?—Yes.

5493. Has there been any increase in the ordinary remuneration of lighthouse-keepers?—There has been a readjustment of pay, but I do not think the increases were so material as to call for any mention; there is a slight increase.

5494. In short, we may take it that the cause of the increase is the additional number of seamarks?—I think so; it more than accounts for it really.

On expenditure of the Mersey Docks and Harbour Board.

5495. Are there any other points?—Well, Sir, there are the figures given concerning the Mersey Board, upon which I do not think that we are called upon to make any remarks, but on the face of them those figures are rather startling if, as appears to be the case from Question 1996, these figures do not include maintenance of the seamarks enumerated by Mr. Hill. You will see, Sir, that, excluding new works, the total cost of the Mersey Board is very nearly half of the Northern Lighthouse Service, and it is more than one-third of the Northern Lighthouse Service if new works are included in each case. It is very difficult to understand, considering the small number of seamarks and the extremely restricted area in which they are situated. I may say that, allowing them for each of their lightships and lighthouses more than we allow for our own, and the same for their beacons and buoys, and allowing them for expenses of administration a proportion the same as is allowed in our Service, it is impossible to say where about between £12,000 and £15,000 goes, unless it goes in steamer service, which is unlikely. However, Sir, I do not know after all how these figures are made up, and do not attach much importance to this comparison, as expenditure may be included which has nothing to do with the seamarks given.

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5496. I think Mr. Norman Hill probably quoted the figures not with a view to totals, but to the fact that during the six years for which he gives the figures there had been no increase in the expenses of the Mersey Conservancy. But that would be no doubt fully accounted for if there had been no new works?—Perhaps so. Then, Sir, as far as steamers are concerned, Mr. Norman Hill draws attention to the expenditure in Question 1819. The increase as far as the Northern Lighthouse Board is concerned is 12·3 per cent. I do not think I need to point out further what has given rise to that. Of course, the extra miles steamed nothing like represent the extra work thrown on the steamers; it includes more coaling, more time for loading, more time for gassing, an enormously increased amount of work done by the crews in connection with boating and landing stores, and in carrying them up. They also do a large amount of work in the way of conveying material for new works and erecting that material. For instance, all the gas beacons are conveyed and placed in position by the steam tenders and their crews.

On increased cost of steam-vessel service.

5497. I see from Sir Thomas Blomefield's Table that pay and allowance of staff, including provisions, accounts for more than 10 per cent. out of a total increase of 16½ per cent. in connection with the maintenance of steam and sailing vessels. Sir Thomas Blomefield's figures are somewhat different from those which you have just given, because they refer to a seven years' period ending 31st March, 1906, compared with a seven years' period ending 31st March, 1899?—Yes, Sir, I believe that is so, but I have not seen the Table.

5498. But I quote them because we have them here before us, and probably the proportion in which the different items have increased is very much the same whether you take seven years or six years as the basis of comparison?—Very much the same.

5499. Can you account for that large increase in pay and allowances of the staff?—Well, there is an additional steamer, Sir, which fell on maintenance for the first time in the first year of Mr. Norman Hill's second period.

5500. That accounts for it?—That accounts for it fully; that is to say, the average annual cost of the new steamer, added to the extra coal consumed, absolutely accounts for the whole increase in the periods with which I have dealt. Of course, I have not seen Sir Thomas Blomefield's figures. Then, Sir, Mr. Norman Hill remarks generally that the steamers are unnecessary, and that to the knowledge of the shipowners the work might be done by hired tugs, and so on. I do not know if that is a matter with which I ought to deal, but I may remark that there is no tug that I know of between Aberdeen and the Clyde; and that when a few years ago we had to charter a tug on account of the loss of one of our steamers, we only found one tug at Glasgow which was in any way suitable for the work, and for that tug we had to pay £220 a month, and to find the crew and everything else; we had her for 14 months. But apart from the question of expense, and the fact that specially equipped vessels are required for gassing and heavy work, tugs do not exist in the places in which they are most required. Then, Sir, in answer to Question 1832, a comparison of what Mr. Norman Hill calls the expenses of administration with the total cost; I think there is one source of error, and that is that superannuations are included in the expenses of administration. Now, the great bulk of the superannuation allowances paid in the Commissioners' service are to lightkeepers and to the crews and officers of steam tenders, and form part really of their wages and allowances, and therefore they should not be accounted as expenses of administration. But otherwise there is practically nothing to draw attention to which is not accounted for by the increase in the service, if the necessary deduction is made of the commissions for new works paid to the Engineer, which in the first of Mr. Norman Hill's periods were charged to new works, but in the second are charged to the head office.

On necessity for steam-vessels.

On administration expenses.

Observations on Sir T. Blomefield's Tables.

5501. Yes, quite so. I see in Sir Thomas Blomefield's Table salaries and allowances at the head office have increased in the first of his periods as compared with the second by 69·6 per cent., but that is mostly accounted for by the change in accounting which you mention?—That is so, Sir; that made a difference of £2,150 on the average in the head office expenses, which previously amounted in all to about £4,000 odd, and rose to £6,000 odd. There has also been an increase in the head office staff of one clerk and a female typist, but otherwise there has been nothing. Then, Sir, superannuations have increased too. They account for £710 out of £1,690 of the increase, and of course you know, Sir, that is more or less automatic under the Superannuation Acts. £530 of that is attributable to the allowance of the late Secretary; practically three-fourths of the total amount.

5502. Have you anything to add, Mr. Dick Peddie?—I think not, Sir, not in answer to these questions.

5503. Very well. We will proceed to the next question, Mr. Crawford. Do you consider that the desirable expenditure on new works, including important alterations and improvements of existing lights, is likely to be greater or less in the future than in the past?—(*Mr. Crawford.*) Well, the view of our Board is that it would not be safe to count on a very large reduction. No doubt the coast is being gradually lighted up, and though it appears in the evidence that there are longer blanks considerably in Scotland than elsewhere, we always have a programme looking a good long way ahead, and as far as possible on a certain system and scheme, and in the immediate future we do not look forward to more than about four or five fully equipped lighthouses. I do not remember the names of all of them at present exactly; the last perhaps would be one which shows the sort of contingency one must keep in view; the Vee Skerries, which has often been mentioned, and which is mentioned in the evidence here. That would at present, unless some cheaper way is discovered of doing it, be an extremely costly work, and it is an extremely dangerous place. It is a place which has never been taken in hand simply because of the very great cost, and it was thought by everybody that with such money as was at our disposal it had better be spent on something else, notwithstanding the great danger. But then, in addition to those, we have still got a proportion of our lighthouses which are not lighted on the most modern or efficient system. We have got a proportion which are still catoptric, as the Engineer described them, and we have converted a great many. That is a somewhat costly process. Then we found it necessary of late years to spend a good deal of money in ways that it could not have been spent in before, owing to new inventions, and in the way of lighted buoys, and so on, and we are advised that it is quite probable that in the advance of science we should be naturally led to spend a good deal of money in similar ways. It would be imprudent to form a restricted forecast in that respect of what the expenditure would be. But then there is another reason why too economical a view of the expenditure should not be entertained—it runs partly into the following question, and that is that hitherto the General Lighthouse Fund, formerly the Mercantile Marine Fund, has only been applied to the wants of passing navigation. Coasting vessels and fishing boats and local requirements which cannot be said to belong to general navigation have not been allowed to participate in the benefits of the Fund. In answer to the next question, I shall have something to say to that, but I say in anticipation that our view is that there is nothing in the charter of our duties which confines it to seagoing ships, and that, assuming it to be the case that a limited number of more fully equipped lighthouses will complete the system as it has been at present worked for general navigation, then the claim of the local lights will come in, and we think it would be unwise to take too low an estimate of the expenditure as far as people can reasonably forecast say for 20 or 25 years. Apparently the recent average for new works has been about £20,000 or £21,000. Well, if I were asked personally I should say it would probably be less than that in an average of years, somewhat less soon after we have done those big works, but we think as a Board that it would be unwise to base the policy of the Lighthouse Authorities generally on a low estimate of what the next few years would be.

New Works: Decrease of expenditure on, is improbable.

Necessity for, in Scotland.

Claims of coasting and fishing vessels to,

5504. So far as the Scottish lights are concerned?—So far as the Scottish lights are concerned.

5505. You think you see your way usefully to spend something like the same annual sum in new works that you have spent lately?—Probably, or not much less.

5506. And in particular you think it likely that claims will be made upon the General Lighthouse Authorities to erect local lights, or lights comparatively of a local character, to a greater extent than formerly?—Oh, I think so, Sir, and when I said not much less I mean that with regard to the next immediate few years we really have no reason to anticipate

any reduction of what we would like to see and like to get for our useful purpose.

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Local Lights: Opinion as to provision of, by General Lighthouse Fund.

5507. I come to Question 5. Have you any suggestion to make as regards the provision of lights of local utility outside the jurisdiction of any local lighting authority, and yet of little or no benefit to passing trade. You have answered that to some extent already, but I think you said you would answer it more fully?—Yes, Sir, the Secretary has given me some particulars about that which I might be allowed to glance at. This has been a somewhat debated question because we are naturally constantly liable to applications for assistance to local lights, some of which would be unquestionably very useful, and the applicants are not very readily satisfied with our reply that we are not able to do it, because such a light has not been useful for general navigation. The Board would like to make it quite plain to the Commission that we by no means think it would be a misapplication of the General Lighthouse Fund, at all events of such portion of it as we are entrusted with the administration of, to assist local lights or to assist fishermen who do not pay lighthouse dues, as opposed to merchant shipping who do pay lighthouse dues. There is a class of dangers at sea which may be described as, so to speak, between wind and water; they are not under the jurisdiction of a local Harbour Authority, nor would the erection of a seamark upon them be of benefit to the general navigation, and accordingly, in the meantime, they do not get any assistance. It is true that a local Harbour Authority, I believe, would not find very much difficulty in getting its powers extended to take in anything of that kind approaching that harbour, but then that is a question of money, and some of those local Harbour Authorities are very poor; they could not do it; it is impossible, and in many cases there is no harbour authority in the neighbourhood. The question has often been raised. So long ago as 1834 a Select Committee—I presume of the House of Commons—on Lighthouses, recommended "that in future a distinction should clearly be made between those lights, which by their situation are useful to the general navigation of the country, and ought to be maintained by general contribution, from those which are useful only to the harbour or locality where erected, and which the local dues and funds should maintain." And it is said that this recommendation arose out of the practice in Ireland of the General Lighthouse Authority maintaining out of the general funds many purely harbour lights. In Scotland harbour lights in the same sense have never been undertaken by the Commissioners. The meaning of the recommendation of the Select Committee was that, while lights of a local character but outside the jurisdiction of Local Authorities might be erected by the General Authority, such lights should be maintained by local dues and funds—*i.e.*, by light dues leviable on the shipping frequenting say a particular port or locality. I am reading from a statement drawn up by the Secretary. Then, several such lights have been erected in Scotland, for instance, Cromarty, Chanonry, Montroseness, Loch Ryan, Devaar, Lamlash, Loch Indaal. For the maintenance of these lights special duties were charged on local shipping. The distinction made by the Select Committee has, however, now ceased to have any force. Light dues are now regulated by the "Merchant Shipping (Mercantile Marine Fund) Act, 1898," and under it there is no longer a differentiation between "general passing" and "local" lights. The only distinction now made is between "home trade" ships and "foreign going" ships. Local dues in such cases were more than double the general passing dues. This distinction was done away with by the Act of 1898. Well, in that way, a great many years ago, the distinction that I have referred to was recognised and emphasised by that Select Committee of 1834. Local lights of considerable importance, a good many of them did get something, because the system at that time was that they paid nearly double dues, and in that way they were self-supporting more than the others. But now that is done away with, and they are in a worse position than ever. Then, I think, I can say certainly for the Board that we have acquiesced in the policy of the Board of Trade, which we had no choice but to do, and with the Trinity House in observing this distinction between general navigation and local lights, but we have sometimes differed in the application of the principle. Differences on the matter have arisen between the Commissioners on the one hand, and the Trinity House and the Board of Trade on the other, and different views have been held as to what constituted "local traffic." For instance, the Trinity House refused to approve of four minor lights in Shetland on the ground that they were "local" lights. The Commissioners maintained that they were something more than purely "local" lights, and in any case they protested against the idea that the fishing interest had no claim upon the attention of a General Lighthouse Authority. It may be said that the Commissioners recognise no distinction between "general" and "local" traffic, except one of relative importance deciding the priority of the erection of the lights proposed. That is the view that we have taken. There are several instances here; it is rather long, I think, to read; there are some that the Secretary gives from the Solway Firth.

Lights erected by General Authority and maintained by local dues.

5508. Perhaps we might have that memorandum put in; would there be any objection to that?—The Secretary will revise it and put it in.

5509. If Mr. Dick Peddie will kindly revise it and put it in, I think it would be of service to us?—Yes, that is the position of the matter, and I may add that in the northern parts of Scotland there might have been still greater practical difficulty than there has been, because there was a considerable number of lights that we thought would be of immense service, and were cryingly wanted by the population, and yet we could not get them passed by the Board of Trade or the Trinity House either, on the ground that they were too local. Well, in several important cases that difficulty has been got over by the Congested Districts Board, which is a comparatively recent body, assisting the population in the poorer districts of the north of Scotland. Of course, their funds are not very large, but with their assistance, at their expense, in short, we have got a good many of those lights which were very much needed, and which we would not have otherwise got, and we maintain them with our service, but at their expense.

Lights maintained by Congested Districts Board.

5510. I think this evidence differs to some slight extent from that which was offered by the Secretary at an earlier stage of our proceedings, because in Question 1546 I see he says:—"The Commissioners have rather been driven to decide that seamarks purely for the convenience and safety of the fisheries are not within their province, because fishing boats pay no light dues, although the preamble of the 1786 Act which constituted the Commissioners, actually bore that it was for safeguarding navigation and the fisheries." I think you are taking rather a more liberal view, Mr. Crawford?—Yes, I think the inconsistency is only apparent. In refusing those applications we have had to answer briefly, without going into argument, and we gave that as the reason; that is the policy; but it is the policy which has been imposed upon us, partly by the other Authorities, and partly by what we recognise to be the inadequacy of the Fund.

5511. You would, as a matter of fact, approve of a more liberal policy in respect to fisheries and local lights being adopted?—We should, certainly.

5512. Where there is no local lighting authority?—Yes.

5513. (*Admiral Henderson.*) Has not the character of the fishing trade altered very much by the adoption of steamers within recent years in Scotland?—Oh, it has very much.

Light dues: Freedom of fishing industry from,

5514. That being the case, is there any reason why these steam fishing vessels should not pay light dues? To all intents and purposes they make use of the sea-going lights, and go long distances?—Yes; we have never considered that as a Board. I should not like to answer that question off-hand. (*Mr. Fleming.*) It is hardly within our province to consider it.

5515. No, but I am asking your opinion in this sort of way, whether some of the difficulties of these questions might not be got over by making fishing vessels of a certain class and character pay their light dues?—I may mention this: that I have heard it several times stated by fishermen that they would willingly pay the dues provided they get lights which they clamantly need, but which we cannot give them, because they are purely for fishing purposes.

5516. What I want to impress is that it is true, I

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believe, to say that the character of the fishing vessels has altered altogether?—Undoubtedly.

5517. The old sailing vessel has died out; most of them are steam-trawlers and vessels; to all intents and purposes, seagoing vessels using sea lights?—Steam liners, trawlers and drifters.

5518. (*Colonel Herbert.*) Has the grievance, if you may call it a grievance, of the fishing vessels been accentuated by the alteration of 1898?—(*Mr. Crawford.*) The alteration by the legislation with regard to dues?

5519. The alteration by the legislation with regard to dues?—I do not think so; no, I do not think so.

5520. (*Chairman.*) There has always been a reluctance on the part of the General Lighthouse Authorities to set up local seamarks at the expense of the General Fund?—Oh, that has been so from the beginning.

5521. But fishermen and other local interests are not less generously treated now than they were before 1898?—No, I should say not.

5522. (*Admiral Henderson.*) It would not be possible to lay down any general line of demarcation between what is local and what is general?—No, you see they have been trying to do it, you may say, for almost 100 years, and it is laid down pretty sharply in practice; except on pretty numerous occasions, some of which are noted in this statement that the Secretary will put in, when our Board have been inclined to take a more liberal view than we could get sanctioned by the Trinity House have reduced their consumption of oil. May I add that there was a distinction drawn in former days among general lights, on account of the tolls that were to be charged in respect of them? Those instances that Sheriff Crawford gave were established as local lights in this sense, that for them were charged local dues—it was so much a vessel, I think, of a certain size—whereas the passing toll was a fraction of a penny a ton. The result was, the local dues were about twice the amount of the passing dues, but that distinction was drawn by Trinity House and the Board of Trade, and it has now been swept away.

Local dues.

5523. (*Colonel Herbert.*) Can this question be said to be one that is purely a Scotch one, in that in England we have not got the same condition that you have in the north of Scotland, where there is not much passing trade, but there is a considerable fishing trade?—(*Mr. Crawford.*) Well, I do not know the circumstances of England in this respect, but I should have thought that though the question was not so large a one in England, perhaps, it must exist in England too; the question of local lights and other lights.

5524. I am speaking specially with regard to the fishing interest?—Yes, I do not know; I cannot say how England would compare with Scotland in that way.

5525. I mean, where there is a large fishing interest in England there is also a large passing trade, which causes the establishment of lights which are also of benefit to the fishing trade, whereas that is not the case in the north of Scotland?—(*Mr. Fleming.*) In England the harbours are less remote from the general lines of passing trade. (*Mr. Crawford.*) A good many of the important fishing harbours in Scotland, like Aberdeen, for instance, are large seaports as well, but then there are no doubt a great many smaller fishing centres. I am afraid they are tending to disappear, but there are a good many fishing villages.

Communications between Board of Trade and Northern Lighthouse Board.

5526. (*Chairman.*) I pass to the next question. What was the total number of communications respectively between the Board of Trade and your Board for the year 1905-6?—I understand, Sir, that the communications from us to the Board of Trade were 236, and those from the Board of Trade to us were 234. Those are official and semi-official communications, and the queries received and answered 95.

5527. Does that represent additional communications, that figure of 95?—Additional, yes. (*Mr. Fleming.*) Additional on accounts and estimates. (*Mr. Crawford.*) And then the Commissioners received from the Board of Trade, through the Trinity House, 26 communications.

Lightkeepers: Number of,

5528. In addition to these questions which we sent you, there are just one or two which I should like to ask with reference to lighthouse maintenance. What is the total number of your lighthouse staff?—205.

5529. Two hundred and five lightkeepers. That does not include the occasional keepers, does it?—No; over 70.

5530. It does include the attendants on minor lights?—(*Mr. Peddie.*) No.

5531. Could you give us the number of attendants on minor lights?—(*Mr. Fleming.*) Twelve now.

Lighthouses: Number under Northern Lighthouse Board.

5532. I think those figures clear up my difficulty. In answer to Question 1439, the number of fully equipped lighthouses under the Commissioners of Northern Lights is given as 80, in addition to which there are 27 minor lights. The table of lighthouses put in by Sir Thomas Blomefield gives figures which I cannot quite reconcile with those; perhaps you could explain the difference?—(*Mr. Crawford.*) I think it was 80.

5533. According to the table put in by Sir Thomas Blomefield, the total number of lighthouses is 89?—(*Mr. Fleming.*) That is 80 lighthouses and 9 minor lights. Sir Thomas Blomefield has considered the lighthouses charged in abstract "A"; we are dealing with fully equipped lighthouses; there are 80 of them; there were 9 minor lights.

5534. How comes it that only 9 out of 27 minor lights are reckoned under heading "A"?—(*Mr. Peddie.*) They are the Congested District Board's lights, and are not included in the lighthouse accounts. There are 12 minor lights now, 11 of which are charged to abstract "A" of our accounts and one to abstract "C," but at that date with which Sir Thomas Blomefield is dealing, I think there were 9 only charged to abstract "A." (*Mr. Fleming.*) Nine of ours and fifteen of the Congested Districts Board's Lights and two of ours established since.

5535. In your abstract of expenditure, the expenditure on these minor lights is not included?—(*Mr. Peddie.*) Of the 12 it is, but not of the 15. Abstract "A" includes all fully equipped lighthouses and 11 minor lights.

5536. And minor lights, save those which are paid for by the Congested District Board?—Yes, Sir, the latter do not appear at all.

5537. That concludes the questions which I propose to ask you, Mr. Crawford, but perhaps there are some other points on which you would wish to offer your observations in connection with the evidence that has been previously given?—(*Mr. Crawford.*) I do not think so, Sir. I read the evidence carefully, and I had your questions before me, which seemed to me to cover very much the general field of our work. I have nothing more to add.

Board of Trade Control: Efficiency of.

5538. (*Colonel Herbert.*) I wish to ask you one or two questions on the question of the control of the Board of Trade, which I think you said was established in 1853?—I think so, yes.

5539. That control, I understood you to say, was exercised over every item of your proposed expenditure?—It is, yes.

5540. Now, in your opinion, has the Board of Trade got the means and the machinery for exercising the technical control, and for making the examination that is necessary in order to exercise that control?—Well, I suppose that question would apply only or chiefly to questions of new works. For instance, in matters of approving of a contract, or anything of that kind, even an engineering contract, I should have thought that they had abundant expert knowledge on that point. But in regard to purely nautical matters, of course, the amount of advice at the command of the Board of Trade is not a matter in which our Board has any actual knowledge. I think that some of the questions in the evidence which I have read were directed to bring out that in such questions they were entirely dependent on the opinion of one officer, Captain Frederick. Well, we do not know anything about that, but our experience is that in deciding questions of that sort we did not always get what we wanted, but we thought that their decision was eminently intelligent, and that it did not show any want of knowledge on the subject.

5541. Does it come to this, in your opinion—that under the arrangement of 1836 the real control, technical control, is exercised by Trinity House and not by the Board of Trade?—No, I do not think so; during all the time that I have been at the Board we always considered the Board of Trade as the real operative Authority; and the Trinity House—of course we have to get its sanction for new works, but we never thought of it as a supervising Authority in the same light, not at all.

5542. Well, I may say we have had it in evidence

that this supervision is considered necessary, because the Board of Trade has not got the machinery to carry it out. That I understood was the evidence of Sir George Vyvyan?—Yes, we have not seen his evidence.

5543. I wanted to know whether your experience bears that out?—Well, of course, we did not know very much about the constitution of those bodies, but it would be quite a new view to our Board that the real brains of the control of our service was the Trinity House and not the Board of Trade; it never occurred to us at all. Of course, we quite recognise the statutory powers of the Trinity House, but we rather considered it as an interloper, although, of course, it had the statutory power.

5544. The point, you see, in my mind is to ascertain whether the control of the Board of Trade is a real control, exercised directly by the Board of Trade, or whether it is merely an official fiction?—Well, I should say it was a real control in this way. For instance, it is not very uncommon that we differ from the Trinity House and appeal to the Board of Trade, and it is not very uncommon that we are successful. The Trinity House decision on nautical matters is reversed, and our decision is accepted.

5545. That is on an appeal?—That is on an appeal. We have put in a statement showing the occasions on which we have differed from the Trinity House, and where the Board of Trade has sustained our view. That, I think, is as much evidence as we could be expected to give that the control and authority of the Board of Trade is real, and, whether it is wisely exercised or not, that it is superior to the authority of the Trinity House in practice.

5546. (*Chairman.*) Where the Commissioners of Northern Lights and the Trinity House have differed as to the expediency of putting up a new work, the Board of Trade have, I think, invariably decided, after hearing the question argued by yourselves and the Trinity House and the Advisory Committee, is not that so?—I think so, at all events, in any case of the slightest importance, yes. My friend reminds me of a case—I was thinking of it while he was answering questions before—it is a case about the expediency of short flashes in lighthouses. Our Engineer had a very strong opinion about it; we have very great confidence in him, and he had strong objection to very short flashes in new lighthouses, and the Trinity House insisted on short flashes, and on several occasions they objected to our proposal because it did not include short flashes. Well, we said that short flashes are dangerous, and we strongly remonstrated against being obliged to do it, and ultimately our view prevailed, and the Board of Trade decided we were right; the Trinity House gave in.

5547. (*Colonel Herbert.*) We have had some evidence on that point about long and short flashes. Those cases that you have referred to include the 24 proposals to which you referred just now, where the Advisory Committee intervened?—(*Mr. Dick Peddie.*) It is impossible in the office to trace what those 24 are. They are stated in a table put in by the Board of Trade.

5548. I understood you to say just now that to those 24 cases the objections were raised by the Advisory Committee?—(*Mr. Crawford.*) That is so. (*Mr. Fleming.*) So the Board of Trade witnesses have said, but we ourselves have no information as to these figures.

5549. This return, of course, includes others?—All we have is the answer in the evidence in which that statement is put in; we have never seen the statement; we do not know anything about it; we cannot trace figures agreeing with them from our records.

Control of Trinity House and Advisory Committee: Objected to.

5550. Your proposals have to run the gauntlet of the Trinity House and the Advisory Committee?—And the Board of Trade. (*Mr. Crawford.*) And the Board of Trade.

5551. The Board of Trade I put in a different category. As you say, that is the legitimate controlling Authority?—(*Mr. Fleming.*) Yes, we take no objection to the Board of Trade's control.

5552. But you object to the others?—We do, Sir.

5553. Emphatically?—We do. We think that one is needless and the other is anomalous.

5554. To go to another point: You have had no opportunity, I understood, of instituting any comparison of expenditure between your expenditure and that of the other Lighting Authorities?—No, Sir, and if I might be allowed here to make a few remarks, which I intended to ask leave to do afterwards, it is extremely difficult for us to do so. We have the published statements of accounts in which the various items of expenditure are entered under separate heads. Now we know that this system of working, which is different in the three Boards, certainly as regards Trinity House and us, results in this, that there are items of maintenance which appear under one head in our accounts and under another head in Trinity House accounts. Now I might point out one that the Chairman referred to, the Head Office expenses, which in our accounts appears as something like £7,000. That includes the salaries of district superintendents. District superintendents are the officers who travel about accompanied by artificers and do all the repairs in the light rooms and engine rooms. These are overhauled annually by them. In the Trinity House a great part of that work is done at their works at Blackwall, I think, which appears under a separate head in the accounts.

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Expenditure: Difficulty of comparing the three Boards as regards,

5555. Not now?—That meets my remark.

5556. (*Admiral Henderson.*) You charge your superintendents to the Head Office expenses?—To the Head Office.

5557. The Trinity House charge their superintendents to the district storehouses?—Then you also notice under the heading of District Storehouses, Trinity House, £9,000; whereas our storehouses are £900. The difference there is that with us a storehouse is simply a place into which stores are received from the contractors; they are distributed into smaller parcels for conveyance to the lighthouses and sent out, and also there are some few testings of oils and smaller matters done there, but it is purely a storehouse, not in any sense a workshop. Now we understand the Trinity House storehouse is to a very large extent a workshop. All that expense of workshop is included as regards the salary of the district superintendents under our head office expenses, and as regards the actual work done, the wages of all the artificers, I think, are apportioned to each lighthouse, and appear in Abstract "A."

5558. (*Colonel Herbert.*) Does not that fact of the different system of accounting indicate that the control of the Board of Trade is a very light one?—No, Sir, I take it that the Board of Trade is equally able to control one system of administration as another. You see the difference of the system of accounting results, it seems to me, entirely from the difference of system of working. Our work is done *in situ*; the work here is done at headquarters.

5559. The controlling Authority of all those systems should be able to institute a comparison between them?—Of course, the difficulty in answering is that I do not know what the other Authorities' accounts are. You could ascertain the facts from our accounts, but I do not know whether you could from the other Lighting it would not. But if you ask me whether it would bring them into line with our accounts; that I do not know.

5560. (*Mr. Ennis.*) I think you have said, Mr. Crawford, that you are of opinion that a single Lighting Authority would not be as effectual as the triple arrangement that at present exists for the lighting of the coasts of the kingdom?—(*Mr. Crawford.*) I do not think it would. The question that we were actually asked was whether it would be more economical, and I gave reasons for thinking it would not. But if you ask me whether it would be more effective, I think not. I think that centralisation to the extent that it is carried is desirable; that is to say that you have all the money—public money, and under a public Department which is directly accountable to Parliament; but on the other hand, for the spending of the money within the limits, within the limits that actually exist, I think it would be, and is, more effectually done by giving those who understand the local wants a certain freedom of hand, and that the actual administration is more effective. Of course, I look upon it from the point of view of our Scottish Board, and I really can hardly conceive that our work would be nearly so effectively done if the office were removed to London.

One Central Lighthouse Authority: Disapproved.

5561. Well, I gather that your view is also that whilst you prefer the continuance of the existing arrangement with regard to three Lighting Authorities for the various countries, that you admit that the constitution of each of the several Authorities is more

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or less of a mediæval character, and that it might with advantage be modified to suit modern requirements?—Well, they are all theoretically very different and very peculiar; there is no doubt about that; but as to our own, of course we do not desire any change, and we should be a little afraid of anything which would diminish the efficiency of what we think is a good practical machine just now merely for the sake of theory or for the sake of change. As to the addition of some members of technical knowledge—it may be that it may be thought by Parliament or by the Commission that that would improve our body—that is a thing we do not oppose.

Northern Lighthouse Board: Constitution of,

5562. I understood you to say that the addition of representatives of the shipping and nautical interests would be desirable, and that you had, as a matter of fact, certain representation in so far as the large shipping towns had at the present time representation on your Board?—Yes. I should say rather may be, than would be, desirable; may be desirable, if it is thought that the expert knowledge of our Board requires reinforcement.

5563. But I think I also gathered from your evidence that the Provosts and Bailies representing those towns were not very constant in attendance at your meetings?—That is perfectly true, and while Mr. Fleming and I are not commissioned by our Board to discuss any proposed changes that is an aspect of it which I think one cannot fail to recognise that if the Provosts of certain towns are put there for the purpose of representing and making known the true interests of those towns, and if they do not come that perhaps the object might be better attained by giving us some personal knowledge in a different way.

5564. I put it to you in this way; you claim that the sole governing authority for the Northern Lights should be the Board of Trade?—Yes.

5565. You desire to see both the authority of the Trinity House and—I will not say the authority of the Advisory Committee because they have no statutory authority—but the operation of their advice as applicable to your needs dispensed with?—Yes.

5566. Do you not consider it would be an additional argument in favour of your contention if a nautical element were introduced into both the Northern Lights and the Irish Lights, seeing that the Trinity House consists practically of nautical experts, and that the allegation with regard to both the other Boards is that they are, theoretically at least, lacking in nautical knowledge?—Well, speaking for myself, Sir, I am bound to say that I think there is a good deal of force in that, that there is a good deal to be said for the view that a nautical element might strengthen our Board, either by giving us a nautical assessor or a representation of shipmasters, and possibly shipowners, on the Board.

5567. With a proper mixture of nautical element in those Boards your argument that the control of the Trinity House is unnecessary would carry greater weight, would it not?—No doubt it might; yes.

Coast Lighting of United Kingdom: Importance of,

5568. I take it that you would agree to the principle that the lighting of the coasts of the United Kingdom ought to be highly efficient?—Certainly.

5569. Quite as efficient as the lighting of the coasts of any other country in the world?—Oh, unquestionably.

5570. Looking to the volume of trade that this country deals with; but you also recognise that there are various classes of users of the maritime highways interested in their efficient lighting; that it is not confined to the oversea trade?—No.

5571. That you have the oversea trade, the coasting trade, His Majesty's Navy, cross-channel steamers, the fishing fleet, and, of course, the small coasting trade?—Yes.

Light dues: Relative proportion of local and general, prior to 1898.

5572. You stated, I think, in your evidence, I am not sure if it is in the paper you proposed to hand in, that local dues at a particular period—I did not quite catch the period that you stated—were more than double the passing dues?—I think up to 1898.

5573. At the time that the light dues were collected as applicable to different classes of trade?—Yes, it was differentiated by lights, I believe; a particular light.

5574. But I understood you to make the statement that at this particular period the amount of revenue derived from local dues was more than double the revenue derived from passing ships?—No, I beg your pardon, I did not express myself properly. What I meant to say, and I hope that is correct, for I am not fully acquainted with the details, is this, that if you had a local light of that kind, say Cromarty or Chanonry, a vessel paying dues in respect of it used to pay double the dues that steamers passing an outside light would pay.

5575. By reason of passing more frequently, is it?—Not passing at all; each time it passed it paid about double what a steamer passing an outside light would do. (*Mr. Fleming.*) In those days a ship paid for every light it used. It was decided that it used a light if it passed within a certain number of miles of it; it had to pay for each light it used a fraction of 1d. a ton, very often one-sixteenth, sometimes even one-thirty-second, a small thing of that sort. It also had to pay for every local light it used. The payment the toll paid for the local light amounted in the case of a ship to double the toll for the general light, an outside light.

Local lights.

5576. That is so, that the rate levied by the local authority?—Not by the local authority; the rate levied by us.

5577. By the General Authority?—There is room for a slight misapprehension here. These lights were put up by the General Authority although dues at a special local rate were levied for them. They were not put up by, and they were not under the control of, any local authority at all; they remained under our control.

5578. What would be known as a local light at present would be a light erected and maintained by a local authority?—Yes.

5579. And outside the purview of the General Lighthouse Authority altogether?—Yes, except for their duty of general supervision.

5580. But the local light you are speaking of does not come within that category at all?—No.

5581. That is where my misapprehension arose?—It is a misapprehension that might very easily arise from the use of the word "local" in two senses.

5582. (*Sir Frank Adam.*) Do you keep those funds separate?—No.

5583. They all go into the General Fund?—They all went into the General Lighthouse Fund; the Mercantile Marine Fund.

5584. (*Mr. Ennis.*) In any event, these various classes of trade and commerce use the lights on the coast of the kingdom, and I would like to ask, would you not provide for each and every one of these different classes of users?—(*Mr. Crawford.*) Provide for there being a service?

Provision of, out of General Lighthouse Fund.

5585. Provide for your fishermen, and assuming there was a stretch of coast on which there was a good fishing trade, and there was no passing trade, do you consider the lighting of the coast would be efficient if the needs of the fishermen were not catered for?—No, we do not, and we do not think that the lighting is complete yet. We think—and the view has been imposed upon us, but I do not know that we seriously differ from it—that the general navigation has the first claim. That is arguable, but that is the policy that has been followed for long before our time. But certainly our Board quite concurs with what I understand to be the spirit of your question—namely, that all the others—for example fishermen and the coasting trade—have a claim; that the sooner they are provided for the better; that they ought to be provided for out of the General Lighthouse Fund.

5586. The question of the incidence of dues in regard to lights does not come within the purview of this Commission?—No.

5587. But we have to inquire into the general efficiency of the lighting of the coasts. My question is, do you consider the lighting of the coast would be efficient if these various classes of users of the coast lights, and the various people whose lives and property would be endangered by the lack of efficient lighting, were not cared for?—Our view is that it would not, and the contrary view of the people who pay light dues, that in consequence of that the lighthouses are practically their property, and they ought to be administered solely for their benefit—that is a view that we do not assent to at all.

5588. Have you felt any appreciable effect of the appointment of the Advisory Committee in 1900 in the direction of rendering your applications for

Advisory Committee: Deprecated

sanction for works more difficult to obtain?—Well, undoubtedly, my personal opinion is—we have never deliberated that at the Board—I must say that I think it has been an additional obstacle and difficulty to overcome. We always quite recognise, in the case of the Board of Trade, that with a due regard to economy, and to the Fund that they had custody of, we could not expect them to give us all we asked for, that is to say, our programme must be worked out by degrees, and we have probably openly asked for rather more than we expected to get every year; I think that is quite fair on both sides, but the Advisory Committee in practice raised irritating obstacles, and we were sure to meet with refusal for most of our proposals. And then I must say that we were afraid, at least, I was—this is speaking for myself—that when you are putting an authority in the position that they could object to everything, the Board of Trade would be more than human if they had not a tendency to give them a sop now and again, and to refuse something that they would not otherwise have refused if it had not been for the Advisory Committee.

General Lighthouse Fund:

5589. The General Lighthouse Fund, you have stated—I think we have had it from other witnesses—is a fund which is for the benefit of the lighting of the coasts of the entire kingdom, and is drawn upon, so far as the Board of Trade sanctions it, by the various Lighthouse Authorities. Would not the fact of objections taken to works, applied for by the Scottish or Irish Authorities, being successfully urged, have the effect of leaving a larger surplus of money to be applied to the lighting of the coasts of England?—Well, Sir, no doubt it would, but we have never had the slightest suspicion that the Trinity House has been actuated by that motive; no suspicion of that.

5590. My question did not exactly refer to the Trinity House; it referred to the general principle that there is no apportionment as between the three countries of the income of the General Lighthouse Fund?—No.

5591. You have not, either in theory or in practice, when making your estimates of cost, to look to a fixed sum that you would be supposed to expend within a given period?—No; we have what for practical purposes is an unlimited fund to draw upon—to apply to. The fund was not always in so flourishing a condition, but I believe at present it is more than enough to meet all reasonable requirements.

5592. Are you aware that the ship-owning community, that is, the people who pay the light dues, received 12½ per cent. concession some time recently with regard to light dues and that a further concession of 7½ per cent. is contemplated, which would be very proper, provided the efficiency of the service was not interfered with?—Yes.

5593. But do you consider that the operation of the Advisory Committee does or does not tend towards starving the service, and, possibly, to a decrease in efficiency?—Well, I have expressed myself very plainly about the Advisory Committee. I do not want to say anything more against it, but I am not in favour of it at all.

5594. I think, if I mistake not, that Mr. Fleming has dealt with the question of the difficulty of comparison between the heads of expenditure of the different Boards. Now, there is one point in which there seems to me to be a wide discrepancy between the practice of the different Lighting Authorities, and it is an item in which a very considerable saving, or the reverse, might accrue from the efficiency or inefficiency of the system adopted. It is with regard to the relief of your lightvessels and rock lighthouses. How frequently do you relieve those stations in your service?—(*Mr. Fleming.*) Fortnightly.

Lightvessels and Rock Lighthouses: Relief of,

5595. That is your universal practice?—Yes.

5596. Are you aware that in the Trinity House service the reliefs are, in five-sixths of the cases, monthly?—So I see from the evidence.

5597. I think the reliefs by the Irish Lights Board are three reliefs each month?—I also see that in the evidence.

5598. Therefore, when the Commissioners come to endeavour to compare the cost of that particular branch of the service, we are faced with the fact that the Trinity House relieves monthly, the Northern Lights relieves fortnightly, and the Irish Lights relieves every ten days?—Yes.

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5599. And we cannot make an exact sum in proportion of it, because, manifestly, assuming that the Irish Lights were to reduce their services to the same proportion as the Trinity House, that is, the monthly services in place of a service each ten days, they would certainly not save two-thirds of the cost. They might make some saving, but they would certainly not save two-thirds of the cost. But what I chiefly wish to ask is, why do you consider the fortnightly service desirable?—Our view is that in the extremely isolated stations, where we make reliefs, six weeks is quite long enough to keep a man in such a place, away from his wife and family; secondly, that it is desirable, especially during the winter months, that the relief should be made as frequently, in reason, as possible, in case of illness or anything or that sort, because many of these places are outside all communication at all; and, thirdly, that many of these stations are stations which can only be relieved at certain states of the tide, and it is necessary that we should take advantage of those tides. I may just add that there is a proposal to connect up the Flannan Islands, which is a very isolated place, and a difficult landing, with a wireless system of telegraphy. If that is carried out, we are prepared to consider whether the increased communication that the lightkeepers on the rock will have with their families at home will not make it possible for us to halve the numbers of reliefs; give a monthly relief, instead of a fortnightly one.

5600. I should like some further information with regard to reliefs. I understand, from your reply, that you relieve the men in your rock lighthouses each six weeks. Is that so?—Yes, each man each six weeks. There are, as a rule, four men on the staff of a rock lighthouse; there is always one at the shore station; there are always three on the rock. A fortnightly relief is made, and one man is changed. The result is that each man has a fortnight off and six weeks on.

5601. You have, I believe, a very limited number of lightships?—One.

5602. You have some unattended lightships?—We have two.

5603. But you have only one attended lightship?—Only one manned lightship, and that has a foghorn on it.

5604. What is your system with regard to reliefs on your lightship?—That is fortnightly relief also.

5605. Similar to the rock lighthouses?—The lightship is on the north side of the Firth of Forth. The steamer that makes the relief to the Bell Rock makes that relief too.

5606. You make it coincide with the relief of the other?—Yes, and there is no extra steaming.

Congested Districts Board: Lights maintained for,

5607. I think you spoke of the Congested Districts Board and local lights; I think they have a number of those?—Fifteen out of the twenty-six, which is the correct number, not twenty-seven, as has been mentioned; we have now eleven, which we maintain out of the General Lighthouse Fund; and there are fifteen which they pay us for maintaining.

5608. I mean that you have joined hand in hand with the Congested Districts Board to provide these lights?—Not quite so; we have not joined hand in hand with the Congested Districts Board in providing, but they have provided the funds for their erection and maintenance by us. We give our service for payment, and the payment is calculated upon what we think it costs the service, so that there may be no burden thrown upon the Lighthouse Fund.

5609. You do co-operate with them, but you do not co-operate with them financially?—No.

5610. You deal with them in a sympathetic spirit, and you give them the benefit of the service and your staff, and all that?—At a price.

Firth of Forth: Lighting of

5611. Have you in Scotland any instance, such as that of the port of London, where the cost of lighting a port is borne by the General Lighthouse Authority?—No. The nearest approach to it is the lights in the Firth of Forth; but in the Firth of Forth there are several ports, and there is no one authority that could take up the lighting. The Clyde is in the same position as the Forth as regards having a number of ports, but before the Northern Lighthouse Board was instituted there was a local board for the Clyde, and they

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continued to look after their lights; a local board incorporated by Act of Parliament.

5612. But as to the Clyde Lighting Authority, the cost of the maintenance of those lights does not fall on the General Lighthouse Fund?—No, it falls on local dues.

5613. It does not fall on the General Lighthouse Fund?—No, but the point of my answer was that the Firth of Forth in our view is not a port the same as the port of London is; it is a sea access to several ports.

5614. (*Sir Frank Adam.*) It is under your control?—Those lights are.

5615. (*Mr. Ennis.*) Under the control of the General Lighthouse Authority?—Yes; the principal lights are Inch Keith, which is opposite Leith, the Ox Car, and one or two buoys further up.

5616. (*Chairman.*) But you quite recognise that it approaches the character of the estuary of the Thames?—Except in this, that there is more than one port; there is no one local authority we could come to and say "You light this," or "You light the other." There are lights which serve more than one port.

5617. In the case of the port of London there is no Harbour Authority at all.

5618. (*Mr. Ennis.*) Could you give us an approximate idea as to the cost to the General Lighthouse Fund of the lighting of the Firth of Forth?—I should first of all have to ask your opinion as to where the Firth of Forth begins. The Isle of May in the old days, before 1898, charged both local dues and passing dues.

5619. I fear I am not in a position to assist you there?—I can give it quite roughly in this way. There is one lighthouse with a fog-signal, costing about £400 or £450 a year, and several small gaslights, which would run the total cost up to £600 or £700 at the outside—that is from Inch Keith upwards. The Secretary will put that in if you wish it.

Cost of beamarks in,

5620. Just an approximation?—(*Mr. Dick Peddie.*) Yes, from Inchkeith inwards.

Lighthouses; short flashes deprecated.

5621. Then you spoke of the rapidity of the flashes; you objected to equipping your lighthouses with flashes of a duration of one-tenth of a second?—(*Mr. Fleming.*) Our Engineer, whom we consider one of the most skilful lighthouse engineers living now, gave us reasons against a quick flash which commended themselves to us. By a quick flash I mean a flash of under half a second.

5622. Do you recollect the reason which was given, because we have had evidence given on this subject before, and I want to compare?—I would rather not give evidence of that, because I am speaking from recollection on a very technical matter, which I am not very conversant with.

5623. It has been pointed out that the difficulty of flashes of one-tenth of a second was the difficulty of a shipmaster taking a bearing?—That is, I understand, the main point, and the difficulty arises from the slowness of the working of the human eye if the flash is too quick. However, acting on our Engineer's advice, we declined to put forward any proposal for a light with a shorter flash than half a second. The Trinity House pressed upon us the example of the French lights—pressed it strongly upon us—but we kept our own view, and finally the Trinity House have come round to our own view, and I understand that they are not putting up short flashes now.

Experiments:

5624. I think we had evidence with regard to the rigorous economy of the Board of Trade with regard to some of your requirements. Do you consider that this rigorous economy has been carried to the extent of interfering with efficient experimental work; have you found any difficulty in that regard? Have you been desirous of carrying out experiments with regard to improved forms of illuminant, fog-signals, and so on, which you were not permitted to carry out?—Yes, I remember one instance where we wished to try an explosive automatic signal. We applied for sanction to the Board of Trade for the cost of that, but were refused, on the ground that Trinity House were carrying out a similar experiment. That I considered a proper refusal, as there was no use carrying out two experiments, and a fortunate refusal, because I understand the system is not reliable.

5625. You have no serious complaint to make that you have been hampered in carrying out experiments that you desire to carry out?—No. Of course, you understand, Sir, that experiments which necessitate any appreciable sum of money are not of frequent occurrence in our service. The experiments which are of most frequent occurrence are those day by day experiments of the Engineer, which do not cost much money.

Fog-signals:

5626. But you have heard of submarine bells as an improved form of fog-signal?—Yes.

Submarine bell.

5627. You have none of those things on your coast?—No, but I may say we have experimented with the bell, and proved ourselves that it is quite a reasonable thing—I mean to say, a possible thing to use. It is no use to us. We have only one station in the service in which we could use a submarine bell, and that is the lightship, because the bell must be suspended in water and struck in water, so that the waves of sound may be originated. We cannot do that at our lighthouse stations; it would be of no use there.

5628. It would not be of practical value to Scotland?—None at all.

5629. Does the coast of Scotland suffer from fog to a large extent?—Very much; we have had fogs for eighty hours—continuous fog.

Siren advocated.

5630. And no doubt the best and most efficient system of fog-signalling apparatus is a matter of anxiety to your Board?—We have taken all means to find what is the best means of giving a signal in danger, in a fog; our experiments and our experience of what we have put up have shown us that the best we have got yet is the motor-driven siren, so that you can get at once on to the full note.

5631. Has a diaphone been tried on your coast?—It was tried, and Mr. Stevenson gave evidence to you of what he found; it is to be tried again shortly.

5632. (*Admiral Henderson.*) I would premise by saying that, in any financial questions that I ask you, the information is got by comparing the accounts and the estimates of 1905-6, and I do it because it gives the latest effect of all the amounts of expenditure rather than the seven years mean, which was taken by the Board of Trade. I want to ask whether in your return from which this published acount is made out it is under the headings as enumerated here?—Yes, it is.

5633. One or two of these questions, I think, probably would be for the Secretary?—(*Mr. Peddie.*) It is practically the same.

5634. What I want to know is, whether you send your returns in under these various headings of details of expenditure?—Yes, we do.

5635. They are all sent in under these headings separately?—In most extensive detail.

Financial Control of Board of Trade:

5636. We have not seen those yet. Very well. Now as to the question of the administrative control of the Board of Trade from its financial aspect—I am not meaning anything to do with new works whatever, that is entirely a question of how much money they may have to spend—but I want to know in what light you view the administrative control of the Board of Trade; whether you consider that going into the details as it does, it is necessary; whether they should not give you as administrators rather larger powers than you have, and that a good deal of correspondence and time might be saved?—(*Mr. Fleming.*) Possibly it might; we would be perfectly willing to accept the responsibility of the greater freedom of spending. At the same time I think it is quite fair to say that I think all of us agree with what Mr. Crawford has said, that we have found that this control, although it may go into matters of very small account, has been exercised with the greatest desire to secure efficiency in work, and we do not for a moment complain of it in any way; and we do not complain of the amount of correspondence that results from this control. It is a fairly-exercised, very close control; at the same time, I say we are perfectly prepared to take the responsibility.

Efficiency of.

5637. If you were given a certain sum for contingencies every year, for which you should account, instead of having to send up every petty demand for approval for something over a £5 note?—Well, to a certain extent we have that, because our estimates, which are all carefully gone over, and carefully considered by the Board of Trade, include round sums for such items of expenditure as office expenses,

stationery, this, that, and the other, and there is always a slight margin there.

5638. But such an item as the recovery of a buoy, for instance?—That would be done in the ordinary course of the steamer's work.

5639. What I am driving at is, that it seems to me that the Commissioners should be able to be responsible to say what is the price to be paid to a tug for towing a drifting buoy to its place, or towing it into harbour, instead of being obliged to send such an item as that up for the sanction of the Board of Trade?—We have found no practical difficulty in that; that is the only answer I can make, Sir. Of course, we have numberless instances of what we call special repairs, but we have found no practical difficulty in the system, that we must get sanction before we embark on anything which is of a serious nature.

Northern Lighthouse Board: Efficiency of administrative system.

5640. You said just now that it is very difficult to compare the expenditure of the Boards, and I will admit that it is very difficult, because none of the estimates—that is one of the points on which the Board of Trade has not laid down a law—none of the estimates are on the same forms, and we have not really seen the accounts. But I would ask, first of all, as the one point on which something can be got, as to the cost of the lighthouses, because, as far as I can make out now from the returns, the Trinity House have 71 lighthouses as against your 80, and 12 unwatched lights, against your 9, and in addition to that the Trinity House have two fog-signal stations which come under that heading, making altogether 85 stations, whereas you have 89 stations; and in the return that we have before us you have a greater number of men employed on the lighthouses than the Trinity House has. I do not know what the exact numbers are, but on the actual return the numbers given are that you employ 294, against 236 of the Trinity House. That includes occasional lightkeepers, and on that your economy or efficiency is £10,000 a year greater than that of the Trinity House. Now, I want to know whether you are thoroughly satisfied with the efficiency of your system and of your lights?—Thoroughly satisfied with the efficiency of the lights we have at present?

5641. As they are?—I am not satisfied with the sufficiency of the lighting of the coasts of Scotland.

5642. That has nothing to do with this. I am speaking in the administrative sense, and not from the other side. Now, again, you see that your actual expenditure for this greater number of lighthouses, the amount for oil, coal, and for stores, was £5,978, as against £9,921 of the Trinity House, an economy of nearly £4,000. Are you satisfied that your supplies are in every respect sufficient?—Quite satisfied.

5643. Can you give any reason to account for this great discrepancy?—No.

5644. On either of those heads?—I suppose that expenditure on oil at Trinity House does not include oil on lightvessels.

5645. No, it does not; it is sent in on the Trinity House return under the heading of Lighthouse Stores, and that is the abstract of the estimates for 1905-6, which shows the expenditure of the three Boards under various heads. It is very difficult to get at them correctly, but I see that paraffin and heavy oil that is required for the lighthouses, the light and cleaning stores, fog-signal stores, which you do not put in for; where do you put in for your fog-signal stores?—(*Mr. Peddie.*) That is engine room stores.

5646. Do you make a special item of that?—Yes, Sir, but only the largest items are stated separately in the estimates sent to the Board of Trade. Paints and certain small articles are not expressly allocated.

5647. It is not in the estimates for 1905-6; fuel, coal for gas-lights, and you put in boat hire and assistance, which the Trinity House apparently do not. I wanted to know in general terms whether you know why you should be so much more economical than the Trinity House in these respects?—(*Mr. Fleming.*) Without seeing those figures, which we have not yet seen, I cannot give a satisfactory answer to my own mind. There may be an explanation in this, that I know Trinity House used large—I think 8 or 10-wick—lamps; we never had more than a 6-wick lamp, and these have been reduced, and we are burning incandescent oil now, and it is reducing the quantity of oil still further. I do not know to what extent the Trinity House have reduced their consumption of oil.

5648. Your consumption of oil and illuminants generally amounts to £650 less than the Trinity House?—The figures, I think, of our consumption of oil were £1,936.

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5649. And you think that is because your system of lighting is more efficient?—I do not wish to say that, because our system of lighting never included these large 8-wick lamps, which burn immensely more than 6-wick lamps. Then, again, our oil is all Scotch oil, which is considerably cheaper than American oil. I do not know what oil the Trinity House take.

5650. They take paraffin?—Ours is Scotch paraffin, which costs us roughly about 4d.

5651. Now, I wanted to know whether you have made any comparison, or have any idea, whether the cost of supply to the various lighthouses on the coast of Scotland, distributed, say, all over the place, with smaller numbers of railways and roads, should not really be greater than that of the Trinity House, where they are close to railways and roads in every direction?—Our idea is that our economy is all the more marked, considering the greater difficulty we have in keeping in touch with our lighthouses. That includes supplying them with oil and coal, and supplying them with provisions, and supplying them with relief. We have on the mainland of Scotland, I think, only 24 lighthouses out of the total number, and even on the mainland there are some of those lighthouses, like Cape Wrath, which are practically inaccessible by the land, being an enormous distance from the nearest train, and are frequently inaccessible by sea.

Economy of.

5652. I have asked several questions on that point in the evidence, and I believe that the difficulties are greater with the Scotch and the Irish Board than they should be with the English Board in the matter of supply?—I cannot make any comparison; I know that the difficulties of our Service are very great indeed.

Incandescent burners: Supply of duplicate apparatus for,

5653. Now, there is one question only remaining; special repairs for 1905-6; you put down 12 conversions to incandescent oil of £100 each; the Trinity House put down 13 for £275 each, and the Deputy Master of the Trinity House, in his evidence the other day, stated that one of the reasons for the great additional extra cost on the Trinity House was because they provided a spare set of apparatus to each lighthouse that was converted?—A spare set?

5654. A spare set. Now do you do that, or what form does it take with you?—We send spares to the lighthouses of various small breakable portions of it, the valves.

5655. Which you consider sufficient?—(*Mr. Peddie.*) Perhaps I might be allowed to say, as a matter of fact, we supply everything in duplicate except the compressed air receivers. There are two compressed air receivers for each installation. We do not supply spare receivers.

5656. Because you do not think they are necessary?—Yes, practically they are not necessary.

5657. What is the cost of a receiver?—I am not certain of that, but the whole cost of a 55 millimeter installation in our service is rather over £80.

5658. I was very much struck by it in comparing these estimates, that what you do for £100 the Trinity House do for £275?—It is really much less than £100; it is really a little over £80 that we do it for.

5659. You consider you have a sufficient number of spare parts for all emergencies?—We have not the slightest doubt of it; we have at least double of everything except the welded receivers. (*Mr. Fleming.*) The light which we put in is a different light from the Trinity House. We put in Chance's light; they put in Matthew's burner.

5660. There could not be that great difference in cost?—We do not know; I think you will find if you refer to the evidence that the Irish Engineer speaks about the difference of those two lights.

5661. Should not, properly applied, the additional number of steam tenders used by the Trinity House reduce the cost to the various other items of service? If you had a larger number of steam tenders whose cost was under a separate heading, would you reduce the cost of your services at all?—I do not quite follow.

5662. I am speaking from the point of view of administration. The Trinity House have eleven tenders against your four, and what I want to ask is whether

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Steam-vessels:

an economical use of those tenders does not to a very considerable extent reduce the cost of supply to the lighthouses, and that it should bear throughout the service, in fact?—I do not think that we could effect any economy by using steam tenders in places where we do not at present use them. Our steam tenders are fully worked, and we have to face sooner or later, with the extension of the service, some addition to their number; but that is another matter. We use our steam tenders, I think, to the utmost practicable pitch; I do not think we could economically use them further.

5663. I have very carefully looked through the logs of the tenders of all the Boards, and I should like to commend to the other Boards your system of log, which is much superior to any of the others. You can see exactly what the vessels do, and it saves a great deal of paper, and I cannot see in any comparison that I have made that I can find anything to find fault with in regard to the economical efficiency of your Board.

5664. (*Sir Frank Adam.*) There is only one question here, with regard to Captain Tizard's evidence, the Hydrographer to the Admiralty. If you turn to Question 3477, he is arguing that it is not necessary for the Lighthouse Authorities to issue information to mariners; he thinks it might be all done by the Admiralty, and he says he gets a certain amount of information from the Northern Lights Commissioners, but they are very lax in giving it?—Yes.

Notices to Mariners: Observation on complaint against Northern Lighthouse Board as to,

5665. I would like to know if you have got anything to say with regard to the point?—It is the one point which I had noted as being a complaint against us, and my first answer is that it is the first we have heard of it. No such complaint has ever been communicated to us before. So far as I can read it, his complaint is that we do not give latitude and longitude. We are perfectly willing to do so, so far as we can ascertain the exact site of the new mark from the Admiralty Charts in existence for those Northern seas, which are sometimes inaccurate. In many cases it is impossible to give the Hydrographer in writing the information which will enable him to mark their site on the chart, but we can easily mark it ourselves and send the chart to him with the notice, if he desires us to do so.

5666. But, apparently, he says he wrote to you repeatedly, asking you to state or mark on the chart the exact position of any lighthouse or beacon?—Yes, Sir, he has occasionally, but he has not accompanied that with any complaint that it is in consequence of faulty information.

5667. And in every case you gave him what he wanted?—At once, and not only any lights under our control, but we have marked for him on charts local lights over which we have simply a supervising control.

Advantage of issue of by Lighthouse Authorities.

5668. Then what is your general opinion with regard to his proposal?—Well, I look upon it as our duty, first of all, to light the coasts, and, secondly, to give to the mariner full information of what these lights are. What we do is to distribute our own notices, and the notices of the Trinity House and the Irish Board which are sent to us, to every port and harbour and creek in Scotland. They are distributed in great numbers, and come into the hands of every person frequenting these ports. The same course is followed by the Trinity House and by the Irish Board. In that way we think that the mariners get full notice of any change or any establishment of any new light. Of course, if the Admiralty or any other body were to relieve us of that responsibility we are perfectly willing that they should do so, but we have done to the best of our ability what we think is an important part of our duty.

5669. Do you think that information would reach mariners as quickly, going through from you and from the other Boards to the Central Authority, the Admiralty, and being distributed by them only, as it does now under the present system?—I should doubt it, but I give that answer with a great deal of hesitation, because I do not know much about how the different notices are distributed.

5670. The evidence, so far as it goes, seems to point to this: that in certain cases, but not numerous cases, it would reach them faster?—Through the Admiralty?

5671. The Admiralty issues a much more widespread and far-reaching notice than the Lighthouse Authorities?—Of course. In Scotland, where there is comparatively a small traffic, in many ports it might be inconvenient to the master of a small vessel to have hurled at his head a great bundle of notices of all manner of lights all over the world, such as the Admiralty post; whereas he gets our notices about the home lights, with which alone he is concerned. But that is comparatively a small criticism. So long as we think that there is any other authority desirous to fulfil this duty of giving Notice to Mariners, and which will do it so that it reaches the mariners, we offer no objection to that.

5672. (*Admiral Henderson.*) The Admiralty issues notices as well?—Yes, they do.

5673. There are five parties giving notices?—Yes.

Lighting of Scottish coast. Not yet sufficient.

5674. (*Mr. Ennis.*) Arising out of an answer you gave to Admiral Henderson, I want to ask, do I take it you do not regard the lighting of the Scotch coast as being thoroughly efficient at present?—I do not think it is sufficient.

5675. What capital sum would you roughly estimate would be needed to put the lighting of the coasts of Scotland, as you think, in a perfectly efficient condition?—I could not estimate that for several reasons. In the first place, I think the coast of Scotland has dark blanks on it, where there is no light at all, at places where there should be lights. In the second place, there are many dangers in the open seas; for instance, the Vee Skerries; and the Nun Rock is another which I think, Sir, should be marked. To put up the old style of pillar lighthouse on the Vee Skerries would cost an enormous amount of money—£50,000 or £60,000 at least; but I think it may be found in the near future that both these dangers can be lit by unwatched lightvessels. We have had one of them, the Otter boat, for some time. We have established one at Skerrinoe, and they have both been exceedingly satisfactory.

Unwatched Lightvessels: Advocated.

5676. You have a high opinion of the unwatched light?—We have a high opinion of these unwatched lightvessels.

5677. So far as your experience goes?—So far as our experience goes.

5678. Just one further question. With regard to the notices that you spoke of issuing to mariners, do you give on those notices diagrams of the lights?—No.

5679. Are you aware that the American authorities do?—I noticed, from the evidence of some witnesses, that they do so, but I have not seen the American notices. The Secretary tells me they do not give them in their notices, but they give some in their annual list of lights. May I ask if we might be allowed to have an opportunity of examining the tables put in by Sir Thomas Blomefield, and making remarks on them if we think they call for any?

Comparisons of cost of seamarks of the Three Lighthouse Authorities.

5680. (*Chairman.*) Oh, I think so; there is not the slightest objection. We shall be very much obliged to you?—I might say, with reference to questions which have been asked of certain witnesses before, as to the means of comparing the cost of the different seamarks in the three services, that I have endeavoured to find some practicable method. I have tried to do so by taking as the unit a lighthouse, and I have allowed multiples or fractions of that unit for the various other classes of seamarks, according to their relative costliness, thus reducing all the classes of seamarks to one common denomination. I have then divided the total cost per annum for each of the three Services, excluding only the cost for new works by the number of seamarks in that Service, thus reduced to the common denomination, and I find that the cost per unit is greatest in the case of the Trinity House and is least in the case of the Scotch Board. I do not profess that the multiples or fractions of the unit which I have taken for the seamarks other than lighthouses are accurate, and I put forward the statement containing my calculation on these lines, which I now hand in, merely as a suggestion of how some such comparison might be made.

(*Chairman.*) We shall be very glad to see your calculation.

SIXTEENTH DAY.

Wednesday, 15th May, 1907.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).
Sir Frank Forbes Adam, C.I.E.
Colonel I. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.
Captain C. Bigham, C.M.G. (*Secretary*).

Sir William Watson, D.L., Sir Robert S. Ball, LL.D., F.R.S., called in; and Mr. H. G. Cook, recalled; and examined.

Sir W. Watson, D.L., Sir R. S. Ball, LL.D., F.R.S., Mr. H. G. Cook.

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5681. (*Chairman.*) You are here to-day to give evidence on behalf of your colleagues the Commissioners of Irish Lights?—(*Sir William Watson.*) The Commissioners of Irish Lights.

5682. You have had an opportunity of seeing the evidence which has been given to the Royal Commission up to the present time, I think?—I have.

5683. And you have also received some written questions addressed to you by the Commissioners?—I have.

5684. I will put these written questions *seriatim* and ask you to give your answers to them, and to afford us opportunity of interpolating any questions immediately arising out of them that may seem convenient?—Yes.

5685. Do you think any important saving could be effected by substituting a single Lighting Authority for the existing system?—Well, I have not considered that subject, and I cannot say that I do. Of course, I look at it principally with regard to the Board that I have the honour to be a member of, and that Board is an unpaid Board, and of course if any Authority were substituted for it it would have to be paid, and that of itself would mean a very considerable increase in money; but I doubt myself, taking the thing even apart from the Irish Lights Board, whether any saving would be made by substituting a General Authority, quite apart from whether a General Authority would be better or not; merely answering the question, my opinion is that nothing would be saved in money.

5686. Has that question been before your Board at all?—No; but the members of the Board of course have considered the subject generally, and I know my colleagues' views pretty well, and they left me very free to deal with the matter, therefore I am of course representing the Board; but, on the other hand, in answer to some of these questions I could not give very definite opinions, because they would, as it were, commit the whole Board perhaps more than an individual would be justified in doing; but on that question I can answer definitely that in my opinion, which I believe is shared by my colleagues, nothing would be saved as far as money is concerned by substituting one General Board.

5687. The question refers to economy alone, not to efficiency?—Not to efficiency at all, I understand.

5688. Will you tell us whether in your opinion the Advisory Committee has worked well? Would it be a practicable plan to do away with the Advisory Committee, and provide that representatives of shipping and other interests should be placed on the Lighthouse Authority itself?—Well, as regards that, I have been present, I think, at nearly all the conferences where the Advisory Committee and the Board of Trade (first under you, Sir), and the three Lighthouse Authorities met, and I think the Advisory Committee works well. I think it is subject to a defect that nearly all the members of it have local interests; perhaps it is not quite a correct expression, but I think it conveys my meaning, that it is rather deal with in a parochial manner, not in a wide one. I think the members of the Advisory Committee are generally very much influenced by the localities from which they come, or which they take the greatest interest in. And I also think that they give themselves too much trouble to try to stop expenditure. Now, I always understood that the main object of the Advisory Committee was to say what works were necessary, and what works therefore, I presume, were not necessary; but I have not found that they approach these subjects in a wide way. There was one case especially struck me very much some years ago, when the Trinity House applied to improve the Skerries Light off Holyhead, one of the main important lights in the Channel on the approach to Liverpool, and the Advisory Committee opposed that in the most strenuous way, to my mind entirely for wrong reasons, and I think they were influenced by that sort of spirit that I name, *i.e.*, of working for particular interests rather than for the entire lighting of the coast, which I understood was to be their use.

5689. What was the particular interest for which you think they were working in that case?—I think there were some people in Liverpool who seemed to be opposed to it, and that they went against it on that account. I do not desire to impute, remember, the slightest intention otherwise than of doing everything that was right, but I give it as an instance where certainly the Advisory Committee were wrong.

5690. One would have thought that local interest would rather have made in the direction of improving a local light?—Well, it surprised me very much that they took that view, but I think it was a local view for some reason or another that was prevalent in Liverpool, and that they took it. The work, I am glad to say, was carried out. The light has been improved, greatly to the benefit of the Liverpool trade, and the total expense of that was only £5,000. But you asked me whether I think it works well; I think it does work well.

5691. You think on the whole?—I think on the whole it works well.

5692. Its creation has been of service?—I think it has. I think it has satisfied a great many ports and shipowners; and I think the members of the Advisory Committee whom I have the pleasure of knowing take a great interest in it; but still I think it is subject to that parochial view of being led by the views and ideas of particular places.

5693. And also a tendency to economise where economy was unwise?—I think so. I think economy comes in too much, because my view is that in the present state of shipping you cannot improve the lighting of the coast too much.

and to encourage undue economy.

5694. (*Colonel Herbert.*) Do you think that that parochial view is influenced by the incidence of the light dues?—Well, it is supposed to be, but I cannot feel that it is, because whether a light is put up in one place or another does not make any particular shipowner pay more or less; therefore I do not see why that should come in, though one would naturally say that it must. They take the view, and always have expressed the view, "We pay the dues, and therefore we have a right to say what is to be done with the money." If it saved money to their particular port, you could easily understand their taking the view, but they go steadily for cutting off anything they can. I must say that I speak rather independently, for I think the Advisory Committee have treated the Irish Lights propositions exceedingly fairly. I do not think any proposition of ours has been rejected, therefore I rather speak more in the wide sense on that point than the particular

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sense. Then when we come to the second part of the question I have no hesitation whatever in saying that the Advisory Committee is entirely superior to putting representatives, either of shipping or any interests—harbour interests—on the Boards. That would appear to me to be necessarily followed by the disestablishment of all the present Boards. I do not think any of the present Boards would work with their present independent elections if official or—what shall I call it—elected representatives were put upon them. I think it would destroy the character of the Boards, without expressing an opinion as to whether a central authority would be an improvement or not, but I think it would mean doing away with the present Boards.

Constitution of Irish Lights Board:

5695. (*Chairman.*) That brings us to the third question. Has your Board itself any suggestion to make for amending its own constitution or altering the relations at present subsisting between it and the Trinity House, or generally for modifying the present arrangements for lighting the coasts of the United Kingdom? Let us take the first point. To begin with, has your Board itself any suggestion to make for amending its own constitution? I rather gather from what you have just said that you prefer to keep your constitution as it is?—I have no proposition, and our Board has no proposition to make on that subject, and I would like to guard myself without as it were clinging to our position of Lighthouse Commissioners at all, because our Board is a very independent Board; all the members of it are completely uninterested in any personal way in the lighting question, and of course they would desire the lighting of the coast to be done in whatever way was the best. I feel that an unpaid Board like ours have no clinging to office. If an arrangement were made for lighting the coasts out of the public funds, and doing it better than at present, of course they would be only too glad to see it. I am a shipowner myself, and my personal view is that this great Empire ought to light their coasts free to shipowners.

Central Lighthouse Authority.

5696. The question of who should pay the cost of lighting the coasts does not come within the purview of our inquiry, but from the point of view of efficiency do you think it would be desirable to sweep away the present system altogether and establish a single central authority?—Well, I do not say as regards efficiency; I say as regards economy no economy would be gained; and as regards efficiency, coupling it with this question as to whether we propose anything, we do not propose anything. You say you have nothing to say to the question of remitting money.

5697. We have nothing to say to that?—Of course, as a shipowner, I have expressed my view that I think the shipowners should be relieved of the cost of the lights, but I see, if you will allow me to express an opinion, great difficulties in the way. My main difficulties are that if the Government take up the lighting of the coast, the great harbours like the Mersey and other places would say that they should be taken up also. I think they would consider it a very unfair thing that all the coasts should be lighted, and that they should go on paying for the lighting of the great estuary of the Mersey, which is just as beneficial to shipping as the outer lights.

5698. It is not within our province to go into the question of who is to pay the lighting charges, but it is possible to suppose that there might be an advantage in substituting a Government Department for the existing Authorities, even though no change was made in the present financial arrangements?—Of course it is.

5699. Have you formed any opinion on that point?—As I say, we have not thought about that, but personally as a shipowner, and as an independent Board, if it really were the better way of doing it, we would not have any objection. How could we? We have no voice in the matter. But in addition to that, I would like to couple it with two observations. The first is that we feel that if there were to be a single authority, it ought to be the Trinity House. We would be very, very much opposed personally, at all events, to the abolition of Trinity House, because you ask me as regards the relations subsisting between us and them, they are of a most satisfactory nature, and we find our propositions very carefully and very fully considered, and we do not think that as a supreme authority it would be at all easy to improve upon it; and, of course, if that is the case, as a single authority it would also be good, except perhaps as regards Scotland. I do not know whether I am travelling outside my province in making a remark on the Scotch question. I think there are many reasons for a separate Scotch Board that do not exist in the case of the Irish Board, and I may put them under two heads. The first is that in the north of Scotland and all these islands there are a great many places—shall I use the expression—who have no godfathers, that are independent and outlying places altogether, and might be overlooked very much if there was a central authority only sitting in London. It has struck me always that that would be the case, while Ireland is, pure and simple, a part of the United Kingdom for lighting. The lights in Ireland that we maintain are not for Ireland or Irish trade; they are entirely for the trade of the kingdom. The actual ocean-going shipowners in Ireland could be counted on your hand, it is the trade both of England and Scotland and foreign nations passing Ireland that require these lights. The result is, of course, that in that sense it could be included in the General Lighthouse Authority just as easily as the south of England or any other part. Perhaps I am going outside my province in expressing these views, but they have rather arisen out of your question.

Trinity House would be best,

5700. We are interested to hear them. Then may I take it to be your position that while the Irish Lights Commissioners do not desire to express any opinion as to whether it would be expedient to do away with the Irish Lights Board and substitute some other authority, if such a proposal was carried out, you think the substituted authority should be the Trinity House and not a Government Department?—We do distinctly. To go back to the economy, perhaps this also may be rather an additional point to make, but I am perfectly certain that a Government Department would be asked to do a great many works, and pressed to do a great many works, that the present machinery have a better power of refusing than the Government Department would have, because every interest round the coast would be down on the Government Department to give them their special lights. I think that stands to reason, and therefore that to a certain extent rather goes beyond what I said at the beginning as to whether it would secure—shall I call it efficiency? It might secure efficiency by getting better lighting, by getting more places than hitherto have been lit.

but system would not be economical.

5701. But at a very much larger expense?—At a very much larger expense, even if those local harbours did not come under it, and I do not see how they are not to come under it. And I think I would like to make an observation coupled with that, that I understand out of the present between £400,000 and £500,000 that the lighting costs, foreign nations contribute about £160,000; if the lights were left free you would transfer that from the foreign nations to the taxpayers at home, which seems rather a doubtful proceeding. On receiving these questions, as you may see, I have thought over the matter pretty well, with the view of being able to answer any question you asked me, and those I think are the points which have arisen out of 1, 2, and 3.

Trinity House control over Irish Board: Works well.

5702. Well, there is one other point arising out of 3. At present your Board is for certain purposes under the control of the Trinity House. Do you think that in that respect the relations between the two Boards have worked well?—Oh, I have no hesitation in saying they have.

5703. You would not desire to see the position changed?—No, I think it would be a great mistake. I think that part, the central control of the Trinity House over both the Scotch and Irish Boards, to a great extent, meets all that is necessary in having a single authority. Now, it prevents clashing, it prevents mistakes being made. It means there is a central authority dealing with all propositions. Of course, they can compare an Irish proposition with an English or a Scotch one, and see whether those would clash, either as regards characteristic in lights or signals, or something of that kind.

5704. And your Board have no complaint to make of the way in which the Trinity House have exercised this control?—None whatever; on the contrary, our relations have been of the most satisfactory character. They do not always agree with us; they ought not to. We do not always agree with them, but we have then to submit; but I have no hesitation in answering it in that way. I would like to add, I suppose it goes without saying that if a central authority was put in

chief possession and our Board done away with, we would never consider it a right thing to do without coupling it with the preservation of the rights and interests of all our present officers. I suppose that would go without saying, but I am quite certain it would not either in actual working or in the question of new lights cause any economy.

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Observations on Statements of Mr. Norman Hill.

5705. Will you kindly furnish the Commission with your observations in detail upon the statements made by Mr. Norman Hill, in answer to Questions 1802 to 1834?—Well, I have read these questions through very carefully, and I would preface any remarks I would make with a general remark. First of all I would like to say that Mr. Norman Hill is a great friend of mine, and he is the Secretary of our Liverpool Steamship Owners' Association, of which I am a very old member, and I have the greatest regard both for his opinion and his wonderful activity and power in dealing with questions, so that I am rather disappointed with his evidence, because his evidence seems to me to be briefly comprehended in the following. "I say that everything that the Lighthouse Boards do is against economy; that they are spending too much money under nearly every department." He is then asked why he says it. He says it is because he knows it; and he is then asked to give figures, and so on, but he says, "I cannot, because I have not got the figures; give me the figures and I will show it." Now, that seems to me to be a curious way of bringing a charge of want of efficiency or economy against any Board. The only case that he does give is the case of the lighting of the River Mersey. There he does give figures, and I think I will begin by answering it. He, in Question 1815, gives what the lighting of the Mersey costs in six years; roughly speaking, I think it is something under £32,000 a year. There is £34,194, £32,047, £33,526, £30,120, £34,149, and 1905, the last year, he gives as £30,187. Well, the Irish Lights figures for the same years are—I think I need only give the thousands perhaps; I will give the actual ones if you like.

As to expenditure of Mersey Docks and Harbour Board.

5706. No, that will do?—£83,000, £96,000, £93,000, £93,000, £92,000, £91,000. Well, those are in or about three times the other. The number of lightships and lighthouses in the Mersey is 15; the number of lighthouses and lightships under the Irish Lights is 86. Well, three times 15 is 45, and yet our expenditure is only—with its 86 lightships—three times the Mersey; in addition to which those 15 lights and ships of the Mersey are all at home, in the same port, and ours are all round the coast of Ireland, involving great distances and difficult places of access.

5707. I think it is only fair to say that the figures for the Mersey were cited by Mr. Norman Hill to show that there had been no increase during those years?—I use them for my purpose, do you see.

5708. I think it is hardly safe to use them unless we knew the items; for instance, some of these may be for dredging?—Oh, no.

5709. You are quite sure none of them is for dredging?—I am quite sure none of them are for dredging; quite sure.

5710. I quite see your general point; I think it is hardly possible for us to continue——?—I am asked to answer a particular question, and, of course, I at once say, I do not include buoys and beacons, because the buoys and beacons in the Mersey are small, as compared to the other questions. I do not want, as you quite understand, to prove anything against my friend Mr. Norman Hill, but if I were talking to him on the subject to-day, I would talk quite as I am talking now, and quite as freely, but I do not think it is a right or a fair thing to say that we know people are very uneconomical and very extravagant, and not be able to produce any figures. But perhaps that is enough to say upon that, Sir, and I will go back to the general questions. The first Question is 1802, on new works, and that is based principally upon this statement that the Irish Lights Board said that they would only spend, or thought they ought only to spend, £15,000 a year. Well, we never agreed to that. At Advisory Committee meetings I have often drawn attention to the fact that that was stated in Lord Courtney's Committee, but that we were not answerable for it, though I believe if the figures are actually gone into, you will find that in a series of years we have not very much exceeded it, and of late years, in the five years spoken of, there has been very heavy expenditure. For instance, the Fastnet Lighthouse, which cost £84,000, added very much to a series of years, and two lightships were sunk and had to be replaced, apart from the ordinary—what shall I call it—renewal of lightships, and though one of them was half paid for—her actual value at the time was paid by the ship that sunk her—still that added a good deal. Then there were several new stations, like the Black Head Station in Belfast Lough, and a complete system of gas buoys was laid down, and a new steamer built to replace the old one, the old steamer having been in use ever since the year our present Queen was married, which I do not think shows that we were very extravagant since 1863—I am glad to say the new steamer bears Her Majesty's name also—but she lasted from the year 1863 to the year 1904. That was a good while for the life of a steamer. Then 1803 is very much the same. I do not think I need add to it. We feel that it is our duty to suggest and ask the sanction of Trinity House for any new works that we really think necessary for the improvement of the lighting of the coasts. It is for the Trinity House to say whether they think they are proper works. If they say they are proper works, it is for the Board of Trade to say whether they think the money ought to be spent, and we cannot do it without first getting the Trinity House sanction, and, secondly, getting the Board of Trade sanction. But in the case of all the works that were charged with want of economy in execution, we have got both sanctions, and therefore it seems to me not very fair to charge them against us as want of economy, or as having done more works than were necessary, when our scientific and financial Authorities have confirmed our view that they should be done.

As to expenditure on new works.

5711. I think we need hardly go into Questions 1804, 1805, and 1806. They all refer to the same subject?—I was just going to say that they refer to the same subject.

5712. We quite understand the view which you take upon it?—Yes.

As to other expenditure.

5713. Then Question 1808?—Oh, yes, excluding new works, the average annual expenditure of the three Boards has increased from £347,331 to £392,088. Well, the fact of the new lighthouses and the new lightships of course increases the annual maintenance; it necessarily must, because there are additional keepers and additional crews to lightships. On the other hand, when we look to the years 1903, 1904, 1905, we find that the expenditure was £86,000, £85,000, and £83,000 under this head, showing that our improvements in lighting are beginning to tell in the direction of economy. For instance, many years ago, we were the first to establish gas lighthouses, and did so with very great advantage to the mariner. But the new invention of incandescent gas, in which the petroleum is turned into gas in the burner, and does away entirely with gasworks and gas makers, means a saving in every lighthouse which is now altered. We are at present altering Galley Head in that way, which was a very costly and very powerful coal gas lighthouse. We have altered Wicklow Head, and we are going to alter several others as time and circumstances allow; because one thing which I say works against economy very much is our engineering staff. It is so very small that it is really impossible for us, I would say, to do more works than a very limited amount. We have an Engineer, an assistant engineer, two outdoor assistants, and a clerk, and they have got to do the entire work, which I think necessarily limits the amount that can be done very materially. But I hold that not only are we economical in that sense, but we by our late improvements are saving in maintenance as these lighthouses are altered, we have got Mew Island, Tory Island, and St. John's Point, County Down to do. St. John's Point is in hand for alteration, and when Mew Island and Tory are altered, it will mean a good many hundreds of pounds saving, all due to that improved form of lighting. I give the old gas inventors a great deal of the credit, because they first showed the flexibility and safety with which gas could be used, and the one great advantage that coal gas had originally over oil, which was that when you lit your lamp you had your full power straight off, while in the oil lamp of the old nature it required the most constant watchfulness on the part of the keeper to keep anything like the flame it professed to keep.

5714. Has there been an actual saving in respect of the fuel employed in the lights?—Oh, yes.

5715. Not merely a relative seving in proportion to the intensity of the light, but an actual saving?—No,

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we have, in sending in the estimates to the Board of Trade, pointed out exactly what it will save in keepers and oil and other things. Now the Cannel coal used in making the gas, which was a very large item, will disappear altogether, because you will have no gas-works; all you have got is a receiver and a pump, a thing that could be placed between the Commissioners and myself here, and the pump is kept with a pressure on the oil, which forces it up through a small tube—but my friend here, Sir Robert Ball, will describe that to you scientifically, perhaps, better than I can—into the little retort which is a part of the burner, and in that retort, which is kept red hot by a kind of by-pass, the oil is turned into gas, and then can be exhibited in an incandescent mantle, so that once you have lit it you have the light at full power, unless the mantle breaks down, which, of course, is replaced in a moment; you have the full power at all times at a less cost, and not only the full power, but a much greater power than the old light gives. The increases are enormous.

5716. Should you say, broadly speaking, that the actual increase in the number of seamarks round the coast, which, of course, require attendance, is in itself sufficient to account for the increases in expenditure to which Mr. Norman Hill points?—I think that any increases in expenditure are all accounted for by that. I am not sure whether wages come in, whether there was any increase; I think there were allowances and certain things within that period that have been increased, but a good deal of materials have been increased.

5717. Cost of materials?—This year, which does not come into this account, we have had increased coal prices, but that will in future be only house coal, with the exception of the coal for the steamers, and house coal for the different stations. When we have altered all the coast stations the Cannel coal question will quite disappear. But where you put the new works and the other increases, and then take off these savings, I think you would find everything fully accounted for. I would not like to fall into any mistake of giving an opinion, though, of course, I have figures before me, which Mr. Norman Hill had not. But we have furnished the Commission with the full particulars that they have asked for, all our figures, so that you can draw your own conclusions as to whether the figures are right or not, or whether they bear out what I say.

As to superannuation charges.

5718. There is one figure as to which I understand the explanation is that the increase is outside your control; that is the amount of superannuation allowances. In the period of seven years, ending March 31st, 1899, the superannuation allowances showed an average of £3,950 a year; in the period ending March 31st, 1906, the average annual figure is £6,700, an increase of about 70 per cent. That is remarkable, but I understand it is outside your control?—It is entirely outside our control, because it is on the system, and each case, of course, is sanctioned, the superannuation, by the Board of Trade; that is not a question where economy would come in. We think it is a wise thing to superannuate a keeper at sixty years. We think that when he has these important places to look after that it is old enough for a man to be there. I believe that some of the other Lighthouse Authorities let them stay till they show signs of failing. Well, we, rightly or wrongly, do the other.

5719. You have always done the other?—I think we have carried it out more strictly lately than before, but as you say, it is not in our hands, because those cases, of course, go direct to the Board of Trade; the Trinity House have nothing to say to them, and they are carried out in that way. But I see here that some items of labour have increased very much. For instance, the cost of labour, as labour, apart from staff, has doubled. We used to get it for 1s. 6d. a day, where now we pay 3s. That would affect new works more than maintenance.

5720. Since what period has that rise in wages taken place?—During the five years, and the labour and material have both increased. Of course the price of all brasswork, and everything of that kind, has enormously increased.

5721. I think the wages of labourers in Ireland have increased much more in proportion than in England or Scotland?—Well, they were very low in parts of Ireland; they were very low—in fact, they are very low at present even in the summer, but in the winter they do not get 7s. a week. I suppose the ordinary agricultural labourer not so much. I believe 7s. as an average would be thought very good, but we could never get them at such a rate.

As to maintenance of steamvessels.

5722. Have you anything to say as regards the expenditure on the maintenance of steam vessels? That is Question 1819?—Well, I think Mr. Norman Hill is mistaken there, because he talks as if the larger steamers were employed relieving lighthouses. They are not. We have only one small steamer, the "Ierne," down on the south-west coast, that serves the four contiguous rock stations—the Tearaght, Skelligs, Bull, and Fastnet—and Roancarrig. That is the only steam tender we have for the lighthouses. The other two steamers are employed in doing all the work of the coast, distributing oil and materials of every kind, shifting the buoys, bringing in the lightships, and attending them in that way, and I can only say that I believe it is done as economically as it could be. Mr. Norman Hill suggested employing tugs casually. Well, that is absolutely impossible. First of all, you must have special gear on board your steamer for handling these heavy buoys and dealing with them, and you must have trained men, or it would be attended with great difficulty and risk, and it could not be done without two steamers. In fact, sometimes, if we have works going on, and the Engineer wants materials or things brought so as to enable the thing to be carried out more properly, it is very difficult to get the services of one of the steamers—they have so much to do—and with the number of these buoys that have to be brought in every year for cleaning and repairing, and the movements of lightships, I have no hesitation in saying myself, I have some experience in dealing with ships, and the Board try to deal with the ships as they would if they were their own in every particular.

5723. In short you, speaking as a shipowner, regard these vague accusations of Mr. Norman Hill with respect to the expense of the steamships as quite unfounded?—Well, you see, his steamer accusation is that we do not want the steamers at all, and that certainly is entirely unfounded. Whether every penny that was spent was absolutely necessary. If you did something else no human being could say, but I am quite certain that it is carried on properly; I know it is. We have a Finance Committee which consists of nine members of the Board, elected for the whole year, and three of those attend every Friday, and every account that is paid by the Board is first brought before them to be passed, and afterwards at a subsequent meeting brought before them after it is receipted, and every single account in that way is liable to be questioned. I do not see how any company could do it better.

5724. You entirely repudiate these charges of wholesale extravagance?—I say they have no foundation. But I do not charge Mr. Norman Hill with making false charges because he has no facts. What I find fault with Mr. Norman Hill for, if I find fault with him at all, is his making these charges and then saying he has no grounds for them, which I think is not a fair remark.

5725. Well, let us pass on to Question 1832?—I do not think I have much to say on those others.

5726. Head office expenses, miscellaneous expenses, and superannuation allowances?—Oh yes. Oh, I have a good deal here, but I have already said it; 1828, that is the place where he brings in about the tugs, but I have said all that, 1829.

As to head office and miscellaneous expenses.

5727. I left out those intermediate questions because they really refer to the same subject with which you have already been dealing?—£80,186 has on the average of the last six years been spent on account of head office expenses, miscellaneous expenses, and superannuation allowances, the details are as under: head office expenses, £36,159; miscellaneous, £17,791; superannuation allowances, £26,236; I have said all I have to say on the superannuation allowances.

5728. Yes?—But I do not think that the miscellaneous expenses can properly be charged in bulk to the cost of administration. Well, first of all, you must omit the superannuation allowances altogether, and, secondly, you would require a good deal more detail to be able to go into the parts of the £30,000 head office expenses. I could not answer that question right off. I think that comes under what I have already said, that we furnish or have furnished you

with all the figures in the case to form your own opinion upon.

5729. Coming to miscellaneous expenses, there is only one item which in the second period, as compared with the first, seems to have largely increased, that is the item of travelling, which in the period ended the 31st March, 1899, as compared with the period ending 31st March, 1906, shows an increase of close upon 20 per cent.; is there any explanation of that?—That turns very much upon the new works in hand, where there must be a good deal of travelling, and I think there has been more inspection also. I do not mean inspection by the Commissioners, but by their officers. I was looking into those figures the other day, and the travelling expenses of our inspector and assistant inspector come to a good deal, and I would say the more the better, because that shows they are constantly on the move looking after the different lights, because really the main way of keeping everything in order is by inspection. The Commissioners inspect once a year, and they have the advantage of knowing that everything is right once in twelve months; but that, of course, can only be done in the summer time, because it would take too long at any other time, and the members of our Board give a wonderful amount of attention and attendance, I consider, to the duties of the Board, but their time is, of course, much occupied elsewhere.

5730. You think that to some extent the increase in the item of travelling represents increased activity on the part of the inspector?—I would say to a certain extent. I speak rather with hesitation on that point, because I do not like to speak definitely without the actual figures before me, and I have not those as taken out from the whole, but I think my answer really is to compare them with the other Lighthouse Authorities and with the matters of a similar kind in commercial departments. I think Mr. Norman Hill and the Advisory Committee think that that could be carried out exactly as a commercial money-making department. That is not at all the case, because we have, as it were, to be looking out for new works. Supposing we neglected, were charged with not putting up lights, the very same party that object to lights are charging us with not putting up lights in proper places. If we put up all the lights we are asked for we should have a very much larger addition to our expenditure.

5731. Can you tell me the principal charges which are included under the heading of travelling expenses?—That I would ask our Secretary to give you. (*Mr. Cook.*) They are included in Abstract G.—the Commissioners' expenses when travelling, the officers' expenses—*viz.*, the inspector, Engineer, assistant engineer, assistant inspectors, foreman of works—also lightkeepers, lightship men, etc., etc. Removal of wrecks also come under Abstract G, as well as subscription to Hospitals Donation Fund £40, allowances to Commissioners for refreshments, experiments and law costs. (*Sir William Watson.*) And I think when it is remembered that it includes all that the Secretary has pointed out, and the distances that have to be covered from these outlying places, I do not think it is much. I know this, that any unusual charge for travelling, especially by keepers, is gone into very, very carefully, not only by the officers, but brought before the Board. We had two or three cases lately in which we considered that an overcharge was made, and disallowed it; nothing is spent for want of very complete inquiry.

New Works: Possibility of future decrease in expenditure on.

5732. I think we may pass on now to Question 5. Do you consider that the desirable expenditure on new works, including important alterations and improvements of existing lights is likely to be greater or less in the future than in the past?—Well, that is a question which I have been considering what answe rit is possible to give, and in one way I would say that it ought to be less, because with the exception of these alterations of stations, which you cannot call obsolete, but that can be greatly improved, coupled with decrease in maintenance, I do not know of any very heavy works pending at present. Of course, there is one which was urgently asked for by the Shipowners' Advisory Committee, but when the amount that we had to name for doing it—£25,000—was stated, they said it was not worth it, and postponed it. That was a light on a point called Crockantirrive, on the west end of Rathlin Island, nearly, which I think myself would be a most important place for a light and fog-signal. Not that I believe there have been wrecks there, but I doubt very much whether the presence or absence of wrecks is a sufficient reason for putting or not putting lights up. I would say you should take the map and find out really what place is too far off from the adjacent lights or in such a position that it really requires a light, when you are coming to take the thing as a whole.

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5733. That particular light was in the first instance suggested by the Advisory Committee?—Oh, that was so; it was not suggested by us, and we never brought it forward on our own account. We were asked by the Board of Trade to give an estimate. Well, for anyone who, as I have seen it, knows the position of it, it is a most difficult place to build a light. You would have to go down and build it on the face of a very steep cliff, and we, of course, gave an estimate of what we thought was the proper light and signal to put there, and it stands now that it was postponed, and it is postponed *sine die*. The only other light of that kind that we did not suggest was Mizen Head.

5734. Yes?—You know, Sir, the history of Mizen Head, I need not say anything unless you wish.

5735. I think Mr. Ennis will very likely have some question to ask about Mizen Head?—But I must speak with hesitation of that No. 5. I have a very, very strong feeling that the coasts of this kingdom ought to be an object lesson to the world in everything that it possibly can be done as regards efficiency, coupled, of course, with practical economy, but I think France and America will go off into what I may call necessary expenditure where we hesitate. In America you know they go to most astonishing expenditure. Of course, circumstances often require it that a lightship is fitted with engines so that she can move about on her own account, which makes an enormous difference in cost. We try to keep everything as moderate as possible, I have no hesitation in saying this.

Local Lights: Provision of, by General Lighthouse Fund disapproved.

5736. Have you any suggestion to make with regard to the provision of lights of local utility outside the jurisdiction of any local lighting authority and yet of little or no benefit to passing trade?—Well, that is a question which rather follows my remark with reference to Scotland; I think that applies more to Scotland than to us; I do not think there are many such cases with us. There are gaps in our lighting, but it is very hard to say that they come under our purview. Since the Mercantile Marine Fund, or rather when the Mercantile Marine Fund was started in 1854, certain lighthouses then under the Ballast Board, which was the then Authority, were taken over, and the Board of Trade have ever since held—and I know in my own time, which now I am sorry to say is 35 years during which I have been a Commissioner, it has governed us very much—that it is not our duty to light local places except to maintain those that we then took over, and a considerable sum of money was handed over by the Ballast Board to the Mercantile Marine Fund at the time. I forget what the amount was—£95,000, I think. There have been cases where either considerable pressure was made or some good reason was given where local lights of the very class you are speaking of were put on the Mercantile Marine Fund since 1854; for instance, there is a very small light on Lough Swilly, on the end of Pencrannon Pier; it is only a little pillar lighthouse that was put up. There were two leading lights put into Carlingford Lough. Well, at Ardglass, in County Down, many years ago, long before my time, the lighthouse at the end of the pier had fallen into the sea, and there was a light there shown just for Ardglass Harbour from a window beyond the harbour for many years. It was thought right to reinstate that lighthouse; it was rebuilt by the Board of Works, but it is maintained by us.

5737. You would not consider it part of your duties to see that a stretch of coast was properly lighted if the lights would only be of use to fishermen, let us say?—Oh, no; we consider unless they benefit passing trade it is not our duty; if we dealt with them it would be on some special case that was brought before us. We might think it our duty to ask the Trinity House for their sanction, and, if they approved, to ask the Board of Trade's sanction; but we would not ordinarily consider it our duty, and the numbers of applications that we have had in which we said that we were not able and had not funds for the purpose have been very numerous.

5738. You would not regard the question as one chiefly of priority; that is to say, you would not think that when the principal lights required by passing trade had been erected, and there was money available for lights of a more local character, that it would then

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become your duty to consider whether such lights ought or ought not to be put up?—No; we have not considered it in that view. We have always thought that if a light was not for the benefit of the passing trade to some extent, it was not within our purview.

5739. It was absolutely not within your functions?—Rightly or wrongly, that is the view we have taken. Take the case the other day, the light at Rosslare Pier, that has been put up by the Great Western Railway; we have had nothing to say to it as a local light, while the lighted buoy to mark the fair way in we very strongly urged should be put on the Mercantile Marine Fund, and, though at first refused, it has since been put on.

Number of communications between Board of Trade and Irish Lights Board.

5740. What were the total number of communications respectively between the Board of Trade and your Board for the year 1905-6?—That I must leave to the Secretary. (*Mr. Cook.*) The communications to the Board of Trade number 532, and the communications from the Board of Trade 572; these include letters and queries and answers to same, application for imprests, etc., but do not include the semi-official correspondence, a very large amount of which takes place annually. Officers in the Board of Trade write to officers in the Irish Lights; we have not included those.

5741. You are giving only the official communications?—The official letters that are registered, that we have got official cognisance of.

5742. That completes the written questions that were sent to you; I do not know if there are any observations you would like to make on the evidence that other witnesses have given?—(*Sir W. Watson.*) Well, there are two or three which, with your permission, I would wish to make.

5743. Well, perhaps you had better take this opportunity of doing it?—Mr. Pelham, in his evidence (Questions 43 and 44), said the administration of the Irish Lighthouse Authority was not so satisfactory as that of the other two Authorities, and he cited 12 cases in which he did not think they acted in a business-like manner. Well, I would like to make observations on one or two of those cases, and the others I would like the Secretary to give more details about. But I would rather, I think, go on to deal with them by themselves, if you would allow me, as most of the other points I can deal with at once. The next was Question 194, in which he said he had great difficulty in getting the Commissioners of Irish Lights to discharge the duties of local inspections. Well, that is a question which has only arisen with the Board of Trade of late years. The Acts of Parliament of 1854 and 1894 impose upon the several General Lighthouse Authorities the duties of inspecting the lights under the jurisdiction of local authorities, which we have always done, and it provides that two things are necessary. Whenever an inspection is made, a report of it is to be sent to the harbour inspected and to the Board of Trade, which has also been done. But the Act does not provide how often or when the inspections are to be made. In the year 1869—I have looked back through the correspondence, and I cannot exactly say what it arose from, but my impression is that it arose from the fact that the Commissioners made rather too many inspections—it was the Ballast Board then—and that the Board of Trade thought the expense too heavy; but, be that as it may, there was a practical arrangement that they were to be triennial, and we have always looked upon it that to examine every three years in or about was an absolute fulfilment of the Act of Parliament. I may say that in the evidence given by Mr. Dick Peddie, in Question 1341, he says the Scottish Lights Board do it every three years, and in Question 278, Mr. Owen, of the Trinity House, says every four years; but we hold that that is our entire duty, while Mr. Pelham seems to put it that we are bound to furnish a list annually. Now as a matter of fact we consider that we inspect these local authorities quite sufficiently, and know that they are all in order. We have done what the Scottish Board do not do, I think. We always inspect ourselves. All the reports have been made by Commissioners, and I cannot understand why Mr. Pelham considers that we have not discharged our duties. About two years ago there were some of the lighthouses—I suppose the Commissioners perhaps had been unusually busy—that had perhaps not been officially inspected for four or five years, but I think none of them are so now. I think they have all been inspected fully up to date. But even when that is done there is no record that we are bound to inspect them every three years. What we are bound to do is to inspect them, and I would ask anyone who finds fault to point out any place where it has been neglected, because we do not consider it has been.

Observations on statements of other Witnesses: As to inspection of local lights by Irish Lights Board.

5744. I suppose that some of those lights are inspected every year?—Well, they are literally inspected, but not a written report sent in. You are quite right, because in the annual cruise of the Commissioners they see nearly every one of them.

5745. When you speak of reporting triennially on the local lights——?—It means an inspection made for the purpose.

5746. Once in every three years?—Once in every three years.

5747. Do you distribute the work over three years, so that in the course of every three years every local light has been inspected?—That is our object; that is our intention.

5748. I presume Mr. Pelham's question was directed to this, that the Board of Trade desired that a report should be made with regard to the inspection of the lights that had been inspected in any given year?—That had always been done, but he put it rather as if he expected a long list every year; it rather reads as if they should all be inspected every year, which is certainly not necessary. We hold that we have inspected them, because—as you have just made a remark, I was going to add that very thing—in going round the coast there are very few of these places that we do not go into and literally we could note those as inspections without saying anything; but our custom has been to give the Harbour Boards notice when we are going to inspect, so that they might accompany us and answer questions that may be put to them. The very last case that I inspected was Belfast, a little while ago, on which occasion the Commissioners took us down in their steamer, and we made a most thorough inspection of it. But all our inspections have been done by two or three of the Commissioners, with the knowledge and, generally, presence of the local authorities, not merely looking at them in passing.

As to constitution of Irish Lights Board.

5749. Do you now send in a report every year?—No, we send in every time we make an inspection, each report exactly in accordance with Section 652 of the Merchant Shipping Act, 1894. Well, then, the next point I have to say is this: that is, Mr. Norman Hill states that the Irish Lights Commissioners especially are not qualified or practical enough to control the lighting of the coast. Our idea is this: we do not want to praise ourselves in the slightest degree; what we have done is, when a vacancy arose we have got the best man we can, and we are the only Authority that are to select, subject to the veto of the Lord Lieutenant, not subject to his sanction. Our present Inspecting Committee, not even to speak of all the other members of the Board, instead of not being qualified, are particularly well qualified, to my mind as a shipowner, following my previous observations, they are better qualified than if they were either Commissioners of a port or shipowners. There are actually only two nautical men on it at present, one Commander Riall, of the Royal Navy, who is the next senior Commissioner to myself, and the other Captain Burnside, who is a Mercantile Marine captain of great experience, who has only quite lately retired, and I know this, he is a great addition to our Board. Then follow Mr. Thompson, who is a very old member of the Board, the gold medallist in science in experimental physics in Trinity College, and a yachtsman of great reputation; he is vice-commodore of the Royal St. George's Yacht Club. Then Mr. John Jameson, whose name is pretty well known as a yachtsman, who was brought up as an engineer; we have Mr. King, who is a man of very great general information, has travelled a great deal, and has scientific knowledge; Dr. Scovell, who is a most practical and useful member; Mr. Frank Fitzgerald, a shipping director and a very practical man of business, and myself; and we have also Professor Jolly, one of the professors of the Engineering School of Trinity College, who brings to bear upon scientific questions the greatest possible knowledge and acumen, Sir Howard Grubb, the greatest British expert on optical matters, and Captain Walker, a merchant captain of great experience. The other members of the Board all bring much practical and general knowledge to bear on discussions. Indeed, it seems to me that a body like that—I will not say that they are the best qualified, I will not say they are the best body that could be got—but to say they are wholly unqualified, I venture to say, is absolutely wrong. I know all questions of any im-

portance are referred by the Board to that Committee, and come before the Committee for the fullest investigation, and why Sir Thomas Blomefield should say that he thought our schemes were less well-thought-out, I think is the expression, I fail entirely to understand how he could know they were thought out. If he had been at the Inspecting Committee's meeting last Monday, where we were considering among many other very important things, the new character of one of these new lighthouses, he would have seen what great care was taken in dealing with the matter. I really have great hesitation in making these remarks, because I dislike very much saying a word for ourselves, and I think I am bound to answer what are practically charges, whether the Commission desire me or whether they do not.

5750. I think you are perfectly entitled to give an answer: I am sure no one will complain of that?—I would dislike very much the idea that we were, as it were, clinging to office; an office which involves a great deal of trouble and a great deal of responsibility. I do not hesitate to say that I am not so young as I was; I shall be very pleased to be relieved from any responsibility in it. Now, as regards the Mizen Head, that comes next. That was asked for by the Advisory Committee, and the Commissioners of Irish Lights were asked their opinion, and, so far as regards their not being economical, they thought that it was a position that did not require a light and fog-signal. I do not know what the opinions of the other Commissioners are, but I know it is my opinion still, because we have two most important lights down there, the Fastnet and the Bull, and outside those, not very far outside, the 50-fathom soundings run, and if anybody coming in there sounds in time he would never go on Mizen Head. The three heads run out like that (*indicating*); this is Brow Head, this is Mizen Head, and this is Three Castles Head, with deep bays miles long between them. I maintain if you wanted a light on one, you would want a light on all three, because you might miss the one and run on the other. The Advisory Committee brought forward a great statement that an enormous number of wrecks had happened on this Mizen Head. Well, they brought forward 16 cases, and of those 16 cases only two were near Mizen Head. I suppose they took them up out of some wreck chart or other, which did not give the exact places, because more than half of them were coasting vessels which had dragged their moorings in some of the adjacent harbours and gone ashore; some of them were miles away from the place, and the only two cases were ships that were coming in in a fog and did not sound, the masters of both of which lost their certificates for careless navigation. If every dangerous head had a light on it and a fog-signal, it would be safer for the mariner. It is stated here that we refused to establish a fog-signal; we never did any such thing. What we said was this: that we are often charged with doing very heavy new works, and if we did not honestly believe this to be a necessity, it was hardly fair that we should get credit for what is a very expensive work. Then it went on, and it was suggested, I think—I forget who suggested it first—that there should be a powerful light there, as well as a fog-signal—this was not our suggestion either—and we were asked to provide an estimate for a light and fog-signal, and we prepared what we thought was really a good one. It was very costly. Well, that has since been changed at the request of the Board of Trade to a fog-signal only, which I think will cost about £7,000. It is a most difficult place to put a fog-signal on; an outlying rock which has to be connected with the mainland by a bridge, as the only means of access to it. I think the bridge is 200 ft. above the water. I am not saying a word against Mizen Head as a light station; I am only saying it is charged against us as a thing that we ought to have done and refused to do. Well, we did not think it was nearly as necessary as some other things, but we never refused to do it. As soon as the Board of Trade asked us to get the sanction of Trinity House we got sanction, and then they gave us the sanction after passing the Advisory Committee, and it is in hand.

As to Mizen Head light and fog-signal.

5751. It is a case of a difference of opinion?—It is a case of a difference of opinion.

5752. Between you and the Advisory Committee?—Yes.

5753. And such differences of opinion are bound from time to time to arise?—Yes; if everybody here agreed with everybody else, what would be the use of three bodies. We might have but one. Well, I have already referred to what Sir Thomas Blomefield said of our not having our schemes so systematically well thought out as the other General Authorities. Well, how he knows how they are thought out I am at a loss to understand. He might say they have not come before him in that way, but I can only say that the thought given to them, I am sure, has been as great as any other scheme of any other body. The next I have to remark on is Question 3476, by Captain Tizard, Notices to Mariners. In old days the Lighthouse Authorities did not give the latitude and longitude of the different places, and I think it was a mistake, but for some years past they have always been given, so that the Hydrographer can plot them at once exactly where they are. Coupled with that I see he says the information is all right now. That was only a past, shall I call it, objection. There was a curious mistake happened in the case of the Oyster Island Lighthouse at Sligo, which I would like to refer to. The approach into Sligo is like that (*indicating*). Here is the sea and here is the river, and the island with the light was here, and to keep clear of the shoals there was a sector of light, like that, from S.21 E. to S.29 E.; that is to say, the sector was only 8 deg. in width. In the Notice to Mariners issued many years ago, about 1901, I think, it is said that it was from S.21 E. by E. to S.29, and it appears that that meant that the light showed all round from the land instead of from the sea. Well, of course, it was a mistake in the notice, and it has been put to rights some years ago; I do not think anyone would say it was a very serious matter; how the "by" got into it I cannot say. It should be from E.21 E. to S.29 E. That is all about it, but it said S.21 E. by E. to S.29, which, of course, meant, instead of 8 deg., 352 deg. of light.

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As to Issue of Notices to Mariners.

5754. It was a clerical error not discovered?—It was a clerical error not discovered; in fact, the Admiralty did not discover it; it remained in the book for a considerable time. As regards signalling there are three matters. Captain Inglefield said that there are no extra expenses of the General Lighthouse Fund for signalling. They do cost a considerable amount. Now, the best case we have, the most perfect installation, is the wireless telegraphy now on the Fastnet. Of course, Lloyd's had to pay the additional keeper, they had to pay allowances to all the men who took their turn in signalling, and they had to build a house on shore for the additional keeper. There was a statement—I think it was made by Mr. Pelham—that the Board of Irish Lights defied the Board of Trade with reference to this; I do not think they could have used the word in the ordinary sense.

As to signalling expenses.

5755. Was not that Mr. Norman Hill?—Oh, yes, I should not have said Mr. Pelham.

5756. I think the expression "defied" was used by Mr. Norman Hill?—What happened was this. We were asked to allow this to be done, and the Admiralty had distinctly told us they were opposed in the strongest possible way to lighthouses being used for signalling, because in the case of war it would destroy their neutral character, and that they would suffer accordingly. Well, we were very much impressed by this, and even though the Act of 1889 practically said that they were to be borne by the Fund if commercial signals were sent, private signals, I believe we hesitated over it till the Admiralty withdrew that, and then we went forward and we established it, but I venture to think as an independent Board we had a right to consider the subject, and I think Mr. Hill's—I intend to ask him about it the next time I see him—use of the word "defied" was most unjustifiable. Well, as regards the signalling question Mr. Ennis raised about our fog-gongs on board the lightships, we are substituting reed horns for all those, but it takes a little time. The reed horn is only a thing of very modern invention, and certainly it is a wonderful thing for such a purpose.

As to inefficiency of fog-gongs.

5757. It is hand-worked, the reed horn?—Yes, in the lightship, but the non-manual one that is at the South Stack Lighthouse on Holyhead is heard four miles off. We have one already fixed in the Codling Bank Lightship, and one immediately south of Kingstown, nearest the Kish Lightship, and they are going out to the other lightships. Wherever there is a gong at present, there will be one substituted for it. The Mercantile Marine Association; I really need not say anything about them. No board, in their opinion, is either efficient or economical. Our late Inspector, Mr. Boxer, gave evidence, but I do not think I need comment on his evidence. He is not a Captain in the Royal Navy I may say; he is a retired

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navigating officer. That was the only rank he ever held. He was our Inspector, and he retired from age under our 60 rule. And Mr. Samuel Lawther gave some evidence that we were incompetent, but he did say one thing in 4,474, which I would like to put on record, about St. John's point light, which was a very old light and a very bad light. Well, it is quite true it was built 70 or 80 years ago, but it is not 10 years since it was improved and made what it now is, a very good light, but at present we are making it a 400,000 candle light. It was a red light originally, and a very badly seen light, and we improved it as much as we could, but now with these quick-flashing lights we have a much greater variety of character available without clashing with the adjacent lights, and we are putting in a quick-flashing light of 46,000 candles, which will be an enormous improvement on the present red light. I merely mention that because it would look as if that 70 years was the age of the present illumination. The Harbour Authorities round Ireland, mostly seem to think that the Board should consist of the local harbour representatives. Well, I have already said that that would be the very worst Board that you could possibly have for two reasons, that their interests are so much confined to local places, and also that each of these Boards at present have all their places lit by themselves. Take, for instance, Belfast; all the lights from the town to the Carrick Buoy, that is a good bit off the entrance to the channel, are lit by Belfast Harbour Board; while Derry lights all their river down to Moville; and in the same way Limerick lights all the upper lights as far as the Beeves Rock; while Cork we light as far as Spitbank. It is one of the few places where the harbours are lit by the Board of Irish Lights. At Waterford River we have only the lights on the entrance to it.

As to lighting of coast of County Down.

As to representation of Harbour Authorities on Irish Lights Board.

5758. (*Admiral Henderson.*) Do you light Queenstown as well?—Not Queenstown; and the river up above Queenstown is lit by Cork Harbour Board.

5759. Do you light the river up above Queenstown?—No; we light Roches Point, the main entrance, Daunts Rock Ship, the Spitbank light, which is the Queenstown light, but, of course, the Cork River proper is lit by the Cork Harbour Commissioners; that is above Monkstown; the Cork Harbour Commissioners like others have their own lights, and there is no reason why they should be on a General Lighthouse Authority. I do not think they would get free from the idea of Cork, and in connection with that I would mention a charge that I have heard against our Board, that it is a Dublin Board, and therefore must have Dublin interests, but the fact is that no one on the Board is interested in the lighting of the port of Dublin. Formerly there were seven Lighthouse Commissioners on the Dublin Port and Docks Board, in accordance with the Act of 1867 when the two were separate, but at present there is no Lighthouse Commissioner upon it; that was done away with when the Board got a new Act in 1902.

5760. (*Chairman.*) Then is the lighting of the port of Dublin done by the Irish Lights Commissioners?—No, entirely done by the local Board, by the Port Board, and we have nothing to say until we come to Howth Bailey outside.

5761. Would not that be a reason for Dublin not being represented on the Irish Lights Commissioners?—That is a reason, and I want to say it is not represented; we are not a Dublin Board; we are only a set of people who live in Dublin, but we have no Dublin connection. That is my point; I hope I make it quite clear. If we did not live in Dublin we could not get the attendance. The Trinity House people all live in London; if we lived all over the country we would not get the attendance. I hope I make that quite clear, Sir. We are not a Dublin Board; we are a Board of people who live in Dublin. I myself, I may say, am almost the only man on the Board that has shipping interests in Dublin. There is Mr. Charles Martin, who is a large shipowner, but his ships trade between ports all over the world; they never come to Ireland, therefore he is not a Dublin man. Mr. Frank Fitzgerald is a director of the British and Irish Steam Packet Company, but that is his only connection with shipping.

5762. But there are certain *ex officio* members representing Dublin?—But those do not represent the Port Board. Those represent the Dublin Corporation, which has nothing to say even to the lighting in Dublin. That point our Secretary, I think, could make quite clear: that when the Act of 1786 was passed, called the Act for Preserving and Improving the Port of Dublin, it formed the present Board.

5762*a*. We quite understand that, but the fact remains that Dublin is the only place which *ex officio* has representatives upon your Board?—Of course they are; they are on it by that Act. Well, it is better for me not to give any opinion whether they ought to remain on it or not. That is the Act of 1786. Someone said our Board only began in 1867; that was the time when the Port Board was separated from it, and we have remained exactly on the old Act, and its old elective principle or selection principle. You do not want, I suppose, any further information on that?

5763. I think we know all the facts?—All the facts, yes.

5764. I gather you are not very anxious to express any views as to whether the presence of those five gentlemen is desirable or undesirable?—I cannot say it is undesirable, because they are put on for a year; they naturally do not take much part. I would like to say this, that we have had two or three Aldermen of late of the City of Dublin, and one at present, who gave a good deal of attention, and who have been very useful. In answer to a question of yours, Mr. Ennis, about the Margaretta Shoal in Galway Bay at the present day whether the marking of that shoal can be improved is under consideration. It is very well marked at present. You see those two buoys outside Galway, and the Mutton Light, which is the only light there, are under our Board. Mutton Island Light is a very old light, but neither of them would be under us if they were now being put there for the first time. Oyster Island, that was one of the questions which I have answered. Now, as regards the other points, of those 12 cases raised by Mr. Pelham, there are one or two that I would like to speak about. I have answered Oyster Island, the mistake in the announcements, and I have also answered Mizen Head. The only other one—I think the Secretary will answer all the others—that I wish to answer is the "Ierne." The steamship "Ierne" was built entirely to be used by the Engineer in building the Fastnet Lighthouse, and she was fitted specially for that purpose, and enabled the work to be carried on most successfully. Her duty was bringing out the stones and material to it, and I must say to the credit of our engineering staff—I cannot help naming it here—there were nearly 3,000 stones, weighing about 2 tons apiece, used in the construction of that lighthouse, and not one single one of those was either lost or broken in moving them from Cornwall, or in bringing them off from the quay in County Cork to the lighthouse there, largely owing to the Engineer's prescience and care, and to this steamer. They used to be loaded in this steamer. Her decks below were all fitted with rollers, so that you could move stones about without any difficulty, and they were set in order, lifted, and brought off to the lighthouse, and put in their proper places. When the lighthouse was built we, of course, had arranged to get rid of this steamer, and we expected to get a considerable sum for her, but we had a steamer called the "Moya," attending the lights on that coast—those five lights that I already spoke of—the Fastnet, the Bull, the Skelligs, the Tearaght, and Roancarrig—and she was very much older than the "Ierne." The "Ierne" turned out to be the better sea boat, so we asked the Board of Trade to agree to our keeping the "Ierne" and selling the "Moya." We sold the "Moya." Of course, she did not fetch very much; she was much more lucky in our hands than she was in her new owners. They lost her almost immediately; she went ashore and became a total wreck. But we then had to spend a considerable sum of money in altering the "Ierne" for our purposes, and Mr. Pelham rather raises a question, as if we did not deal with that in a proper way. We had first said £1,000 would be required, but I believe it cost nearly double; but on the other hand, if we did make a mistake with regard to the sanctions, we are sorry for it, but it did not put the Mercantile Marine Fund to any expense, because a general overhaul of the "Moya" to keep her would have cost more money a good deal than we spent on the "Ierne," and I can only say we are prepared to justify anything in connection with the "Ierne," except any technical mistake with regard to sanction, which, of course, if there was, we regret. The other question is the "Alexandra," on which I understand there is a question raised about extra expenses. Well, I think,

As to marking of Margaretta Shoal.

As to unbusiness-like methods of Irish Lights Board.

looking at it as a matter that I have had a good deal of experience in, the difficulty of keeping clear of extras in building a ship, I do not think we did at all badly. This is a question I would like to answer myself, and to a certain extent I am personally answerable, because the ship was built under the supervision of our shipwright, Mr. Idle, and our mechanical engineer, Mr. Rochford, and a committee was appointed, which consisted of Mr. Jameson, Mr. Thompson, and myself, and we certainly exercised all possible care in it. The tender which was accepted by the Board of Trade was £29,794. Well, when the ship came out on her first voyage, we found she was not supplied with a donkey boiler, with the result that the water in the boilers could not be properly circulated, and the boiler was an absolute necessity, and that added £805. There were certain other extras which only amounted to £200, which I do not think so very much of, but it brought her cost up to £30,868; that was only £1,100, including the donkey boiler.

5765. (*Mr. Ennis.*) I have taken the figures here from the Return given, and I make it £31,500?—Yes, I was going to explain that to you. When the time came for her to go back for examination at the end of the six months of the guaranteed period to the builders, there were certain works had to be done. We would not accept the vessel, because her speed would not come up to the proper figure. They guaranteed that she would go 13 knots, and she did not do it, and we said we would not take the vessel unless she did it. They had in consequence to fit artificial draft to the boilers, which the builders did at their own expense. Well, that is the first thing to show that we were not, what shall I call it, over-indulgent to the builders. And this artificial draft, and the donkey boiler with which she was fitted at the same time, kept the ship very much longer at Barrow than we ever expected, and there was a total amount of lodging money for the crew, etc., £333; and then nautical instruments not included in the original contract, £168, and some other small items which make a total of £868 18s. 11d., and brought the figure up to the one you name.

5766. (*Chairman.*) If the donkey boiler was an absolute necessity, do you not think that necessity ought to have been foreseen?—It ought; I quite say so.

5767. Is is not that kind of case that Sir Thomas Blomefield had in his mind when he said your schemes are not always perfectly thought out?—Dealing with these matters we are left to our foreman mechanist—not our engineer, Mr. Scott, but our head mechanist, Mr. Rochford, and he maintains to this day that the donkey boiler was not wanted, and that he was right in omitting it. It was not an omission by mistake, you quite understand, but I can only say I have had about 40 years' experience in dealing with ships and boilers, and I maintain that it was absolutely necessary, and so did the rest of the Committee, and we were not aware that the boiler had been omitted. But it is rather a peculiar case, and I thought it was fair to the Commission to tell them the actual facts here; I have no desire to conceal anything about it. What I would add is that the builders brought us in a bill for £1,446, sheer extras altogether, and they said our people had agreed to modifications, which saved expense of £990, and that we owed them a balance of £456, but we repudiated the bill absolutely; they had no ground for it whatever in our mind, and I think that showed—both the artificial draft, and not giving them these extras—that we treated them exactly as we would if we had built the ship for ourselves. As regards the donkey boiler, that is a matter of opinion, and if our mechanical engineer, Mr. Rochford, were here, I know what he would say, namely, that he had made no mistake, because the boiler was not wanted, but I know, if you consider my opinion of any importance, it was wanted.

5768. And in the official communications to the Board of Trade that addition was stated to be absolutely essential?—It was; it was stated, too, there is no question that it is essential. I could bring you expert evidence to show this. I do not know that I have anything further to say. I just see two lists of questions here. Oh, yes, there is a reference made, I forgot; the reference to Rockall, as to whether there should be a light on that extreme rock, or group of rocks, 200 miles away to the north-west of Ireland. We have often had them under discussion, and we maintain, if they were to be lit, it would come under the Irish Lights Board. I believe the Scotch people say it would come under them; it is 200 miles from us, and 200 miles from them. I do not know under whose authority it is. I was very much interested in seeing it brought up now, for I personally am very strongly of opinion that they ought to be lighted. There was a very terrible shipwreck there some time ago. It is a very interesting group there; you have the remains evidently of an island, or a group of islands, and there is nothing now above water but two rocks (*indicating*) about 40 or 50 feet high. I believe you could build a lighthouse on it, but it would be enormously costly. I only allude to it because it was mentioned. I do not think I need go into the various uses that our steamers are put to, and the duties they have to perform, more than I have already done, but I can say, in addition to what I have already said, that our two steamers, the "Alexandra" and the "Tearaght," are fully occupied, not only with the regular work, but with, you may say, the casual work which arises. At any time that we hear a lightship is out of position we have to send down straight off to get her replaced. We hear that there is wreckage which must be removed; the "Alexandra" or the "Tearaght"—I forget which— was engaged for a very long time in Dublin Bay on such work. There was a very sad wreck, a collier foundered, and was reported to be very near the west of Howth, and we were hunting there for her for days. Well, if we are told of a danger of that kind, we must have a ship for the purpose of removing it, and she is taken off her regular work. I have nothing further to add. I am very much obliged to you for the patience with which you have listened to me.

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5769. The Secretary, I understand, is prepared to give evidence with regard to the remaining instances of unsatisfactory methods put in by Mr. Pelham?—Yes, he has particulars.

5770. (*Admiral Henderson.*) I should like to clear up the question about Cork Harbour; I understand it is Queenstown Harbour, and that you do not have anything to do with any lighting inside the entrance to Queenstown Harbour?—Oh, no; we have the Spit Bank Light, which is inside the entrance to Queenstown Harbour.

Lighting of Cork Harbour.

5771. Inside; but do you light Queenstown Harbour itself?—No, but we have a light in Queenstown Harbour.

5772. There is the Pile Lighthouse there?—That is ours.

5773. Do you do the buoyage in Queenstown Harbour?—No, the Admiralty and Cork Harbour Board do that. There is the entrance, there is Camden Fort, and there is Carlisle Fort (*indicating*). The buoys outside are ours, the Pollock and Daunts Rock; and Roches Point Light, with its fog-signal, and then inside the Spit Bank Light.

5774. And none of the buoyage inside the Point?—And none of the buoyage inside the Point; it is either Cork Harbour Board or the Admiralty.

5775. (*Chairman.*) Perhaps Mr. Cook would give that evidence?—(*Mr. Cook.*) Of the remaining instances that Mr. Pelham includes of unsatisfactory methods, one was about the accounts presented to the Commissioners of Irish Lights for repairs of nautical instruments by Messrs. F. M. Moore and Co. Well, I cannot say that any blame can be attached to the Commissioners in connection with this transaction. Several applications were made from time to time to this firm to render their account, as it was known they had outstanding claims unsettled, as shown by our Register of Orders, but without success. Till the matter came into the hands of the liquidators we could not get a statement of accounts from them, and when the matter came forward it was fully discussed by our Finance Committee, and the Committee decided they should pay the bills. If we knew they were due, we had no right to take advantage of any clause of limitation. Mr. Martin I know was very strong on that point. He said it would be a dishonest transaction, if we knew the money was due, to take advantage of a man's carelessness.

Observations on statement of Mr. Pelham: As to unbusiness-like methods of Irish Light Board.

5776. You consider, in that matter, no blame attaches to the Irish Board?—No blame whatever. I know myself I wrote several times to them, and asked them to furnish the account, informing them I would bring the matter before the Commissioners if they did not do so, to have their name struck off the list of contractors. Mr. Moore, who was in charge of the firm's business in Dublin, was afterwards transferred

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to Belfast, and the matter passed into the hands of liquidators. The next Question is No. 5, regarding charges for clocks for timing fog-signals in the Irish Lights Service. This is simply a case of difference of opinion, in which the Commissioners consider it would conduce to greatly increased efficiency, and eventually to economy as well, if good clocks with strong English movements and loud trembling alarms, sounding for five or six seconds, were substituted for cheap stamped American clocks with weak single stroke alarms, which are often inaudible at a few feet distance in stormy weather. The good clocks proposed have the further great advantage that they can be made interchangeable, being capable of alteration to any desired interval of sounding in a few minutes; one spare clock kept at Kingstown could therefore be posted to any station where the clock required repairs. The cheap clocks can only be altered from one character to another by a clockmaker at considerable expense

Observations on statements of Mr. Pelham.

5777. No. 6?—No. 6. These are claims made by the keepers of the Skelligs and Inishtearaght Lighthouses for lodging allowance, owing to the new dwellings at Valentia not being ready for occupation. The late accountant was responsible for the original delay in dealing with the matter. Having regard to the fact that the keepers were directed to occupy the dwellings on the 11th April, 1901, and that one of them went into occupation on 17th April, 1901, there was a difficulty in deciding up to what date the allowances should be paid to the others, as, although six of the keepers were at the lighthouses, there was nothing to prevent their families from moving into the new dwellings during their absence, and I recollect that he did not consider the keepers entitled to payment of the full amount claimed. The matter was in dispute till the Inspecting Committee visited the station, and the light keepers there made a report to the Committee, and they investigated it at the time, and decided that the money should be paid.

5778. There seems to have been an oversight in that case?—Mr. O'Grady thought the men were not entitled to it, but the Commissioners decided against Mr. O'Grady, the late accountant. (*Sir William Watson.*) It was rather a complicated case.

5779. But the statement made to the Board of Trade was that through some oversight the matter was lost sight of?—(*Mr. Cook.*) Mr. O'Grady decided against the keepers, and the Commissioners when they visited the station decided in favour of the keepers.

5780. Was no communication to the effect I have just mentioned made to the Board of Trade?—I am unable to say, Sir.

5781. Will you proceed to the next case?—The next is, transfer of Mr. T. Byrne, lightkeeper, from Clare Island to Eagle Island. The Board of Trade complained that they got rather a curt letter. The fact of the matter was that on account of a disagreement between the families of an assistant keeper and the principal keeper at Eagle Island Lighthouse Station, which, from the reports that came to hand, appeared likely to lead to a free fight, it became necessary to promptly effect an exchange of keepers, which was done, Byrne being the keeper selected to effect an exchange, as the station he belonged to was conveniently situated for this purpose. We had to take this man away suddenly.

5782. The complaint of the Board of Trade there is that they did not receive a sufficient explanation?—The Commissioners were asked for the reasons for the sudden transfer; Mr. Pelham says they replied rather curtly that a keeper was suddenly required at a neighbouring station, and this man was sent. That is the only answer we could send; it was perfectly true.

5783. No. 10?—This is the works at Kingstown on land leased from the Board of Works. The statement that we had entered into an agreement with the Board of Works in which we bound ourselves to carry out certain works is true. There was a mistake in that case, but I might state as an extenuating circumstance that our late Secretary, Mr. Armstrong, had just returned from sick leave. The Commissioners entered into an agreement with the Board of Works without informing the Board of Trade, but the mistake was altogether due, I think, to the illness of Mr. Armstrong.

5784. Case 11?—Case 11 is the cost of manual reed fog-horns in the Irish Lights service. Well, Sir, I asked Mr. Scott; this is more a point for him than anybody else, and he handed me this statement:—"The Board of Trade were first approached with a view to finding out whether they would approve of our obtaining horns from Messrs. Chance, and a quotation for a single horn, amounting to £88, was forwarded for their information. It was fully intended that as soon as the Commissioners were authorised to deal with Messrs. Chance, negotiations should be entered into to get the price reduced if an order were to be placed with them for a quantity. The Commissioners are frequently hampered in negotiating for low prices by having to wait, frequently many weeks, for the Board of Trade sanction before they can give an order, and it was anticipated that better terms could be obtained in this instance if they could approach the contractors with power to give an order on the spot the moment a price was agreed on. The Commissioners had previously obtained reed horns from Trinity House, and the price had come out at about £60 each, while they had of course no power to make any objections if the goods were not in all respects what they might desire. Moreover, as this price only included a charge of 10½ per cent. for establishment charges, which is less than half what the most economical commercial engineering works can do such work for, it was highly probable that £60 did not really represent the total cost to the General Lighthouse Fund. By dealing with a contractor, however, they could agree on a definite sum which would certainly represent the total cost, and could insist on having every detail carried out to their entire satisfaction. Having succeeded in getting the price reduced to £70 each for an order for seven horns, which they believe to be better articles than the Trinity House horns, even without having the power to place an immediate order, they were convinced that it would be much more satisfactory to accept this offer than to obtain the horns from Trinity House and pay £60 each."

5785. The original proposal, however, had been, I understand, to purchase seven of these horns from Messrs. Chance Bros., at a cost of £88?—It was one, Sir; we only got a quotation for one, and afterwards——

5786. The statement put in by Mr. Pelham is not accurate if that be so. "The Commissioners of Irish Lights proposed to establish these fog-horns on certain lightships, and asked for our sanction to the purchase of seven of Messrs. Chance Bros. and Co., at a cost of £88"?—Mr. Scott distinctly states that the Board of Trade were first approached with a view to finding out whether they would approve of our obtaining horns from Messrs. Chance, and a quotation for a single horn amounting to £88 was received and forwarded. We had some time previously asked for a quotation for a single horn. I presume that is what Mr. Scott means when they found they were to get a number—seven of them—we got the price reduced to £70 each.

5787. There remains the 12th case?—Yes, about the fog-bell at Barr Point, Larne. We wrote a letter to the Board of Trade. I do not know why this case should ever have been brought forward. I have brought the letter to show that we acted perfectly fairly with the Board of Trade on the matter. We wrote to the Board of Trade on the 15th October, 1902:—

"Sir,—Referring to your letter of 12th June last, and to the sanction contained therein.

"I am now directed by the Commissioners of Irish Lights to state, for the information of the Board of Trade, that they have given the subject of establishing a gas station at Ferris Point, Larne, every consideration, and I am now directed to submit a detailed estimate prepared by the Engineer amounting to eight thousand nine hundred and thirty pounds, viz.:—

	£
For gas station	4,800
For keepers' dwellings	3,200
For Conversion Chaine Towerlight	200
For Barr Point bell	730
	£8,930

"This scheme provides for the formation at Ferris Point of a gas station where gas can be made to charge not only all the buoys in the Larne district, but also those sanctioned for Dublin Bay, to keep an unwatched light at Chaine Tower, to provide dwellings for Maidens keepers, and to work Barr Point bell.

"The present rented dwellings at Larne and the services of the Chaine Tower keeper could be dispensed with if scheme were adopted. The staff would consist of

a principal keeper and female assistant, and four assistant keepers, three on the rock and one on shore, and it is expected that the keepers on shore would be asked to make the gas, look after the Ferris light, the Chaine Tower unwatched light, and the Barr Point bell. The Chaine Tower would be fitted with gas holders charged once a month, and would be lighted and extinguished at sunset and sunrise by one of the keepers from Ferris Point, but left unwatched at night. The Tower, however, would be visible from Ferris Point Lighthouse.

"The fog-bell at Barr Point would be rung by a compressed air driven clock, the air being supplied by a half horse-power gas engine in service room of lighthouse, where also would be installed an electric indicator bell to advise the keeper of the correct working of the fog-bell. I have to point out that this scheme should be adopted in its entirety to produce the results for which it was framed, namely, to work five different interests from one establishment, and to so concentrate operations as to save the cost of two additional keepers while promoting greater efficiency. The Commissioners hope the Board of Trade will be good enough to favourably consider this scheme, which they believe to be the most economical and comprehensive that can be framed, and to accord their sanction at as early a date as possible, to the expenditure of three thousand eight hundred and fifty pounds, beyond the sums already sanctioned, viz., five thousand and eighty pounds."

Well, as Mr. Scott tells you, the original proposal for this signal was to utilise an existing bell rung by a clockwork machine which would necessitate the employment of two keepers, and the estimated cost of the erection of the bell was £80. Before the work was commenced, the Commissioners' Engineer resigned, and a new Engineer was appointed; the latter, on looking into the matter in conjunction with a scheme for working all the lights and gas buoy depôt at Larne by a combined staff, recommended the Board to instal a compressed air driven clock, for which he afterwards substituted an electrical plant by means of which the bell could be actuated from Ferris Point Lighthouse by the keeper in charge of the light, the additional cost being estimated at less than £550, which brought up the total estimate, including £100 provided to cover the cost of obtaining the land, to the sum of £730. This additional £550 was estimated to save an annual expenditure of nearly £200 for the two keepers required by the original scheme. The Commissioners immediately put this improved scheme forward, and inserted the increased estimate in the annual estimates for the next year, and it was sanctioned by the Board of Trade and approved by the Advisory Committee when it came before them. I do not know why the Board brought that forward.

5788. As far as I understand, the complaint is that the original proposal of £80 was sanctioned, but then the Commissioners changed their plan and put down the new plan as amongst the works which had been sanctioned by the Board of Trade, whereas it had not been sanctioned in that form?—They had not been sanctioned in that form; they sanctioned £80 in the first instance.

5789. That seems to me to be a very reasonable complaint on the part of the Board of Trade?—We informed the Board of Trade we were saving the cost of maintaining two keepers by spending £550; we informed the Board of Trade of that.

5790. I think the complaint of the Board of Trade was not that the new scheme would not be a better one than the old scheme, but that it appeared under the heading of new works sanctioned, whereas it had not been sanctioned, it had only been sanctioned in the old form?—There was £80 sanctioned in the first instance for the bell at Barr Point; next year we went forward for the larger amount, and explained the reason why we did so.

5791. I think the matter is fairly clear?—That special £80 was sanctioned in the first instance; the following year we put in for the larger amount, because we found that it meant saving so much money annually.

Irish Lights Board: Representation of various interests on, disapproved.

5792. (*Colonel Herbert.*) I should like to ask Sir William Watson one or two questions with regard to the constitution of your Board. We have had it in evidence that they are practically all co-opted, 17 members are co-opted, and we have also had evidence to which you referred with regard to a desire for representation on that Board. Have you ever considered any practical way to meet that view granting them representation?—(*Sir William Watson.*) No, we have always, as I have said, thought representation of ports on the Board would be a great mistake, and we prefer the Commission remaining as it is on its present footing; it must be independent; if you let in any interests you disturb the nature of the Board.

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5793. You would admit representation on the part of shipowners?—No, we consider it would be unwise; as a shipowner myself, I think it is unwise.

5794. As matter of fact you are shipowners, several of you?—Two of us are shipowners, myself and Mr. Martin, I know, who shares the same views.

5795. But would you not give the shipowning interest a right to representation?—No, I think, as I said already, that as the Advisory Committee they come in in a much more useful way than they would if on the Board. Of course, they could not be both. No, it is my distinct opinion as a shipowner and as a Commissioner that that would not be the right way of meeting it.

Control of, by Board of Trade and Trinity House, satisfactory.

5796. To pass to the control which is exercised by Trinity House, you seem satisfied with that?—I am quite satisfied with it.

5797. But there is likewise a control exercised by the Board of Trade?—Of course there is; the money control is entirely in their hands; absolutely.

5798. Do you think that the system of dual control is satisfactory?—Well, as things are, taking the way the funds are arrived at, and everything, I think it is very hard to improve upon it. I think it has done its work very well in the past.

5799. You believe it is a real practical control; not a fictitious control?—Oh, I know it is; it is an absolute control; I think nothing shows that more than Mr. Pelham's questions. It seems to me if we go wrong in the very slightest degree that we commit a very serious offence, and we do not desire to do it. If any of those were mistakes we admit it at once, because we believe that control should be exercised properly and that we are bound to obey it and that it is a real control.

5800. But what might be called a petty interference is not necessarily effective control?—These rather came upon me as a surprise that Mr. Pelham should bring them forward, because we have not suffered from petty control at all. Our relations with the Board of Trade as the supreme financial authority have been very satisfactory. They never asked questions that they were not entitled to ask. Our correspondence has been very very satisfactory. I was rather surprised that either he or Sir Thomas Blomefield should make those observations, because I thought they looked as if they were under the impression that things were wrong, which I did not think was so. We had gone on with them and the Trinity House for many years most satisfactorily. I do not make much of those things at all; perhaps I am wrong, but I think, finding out twelve like that, shows how well the work was done, that there are only twelve things which even they can call mistakes; and I think we have explained away most of them.

5801. That I may call it petty criticism you do not consider arises from the fact that they have not got a thorough grasp of the whole condition of things, which they would have if they were a real supreme controlling authority?—Well, that as I say, I cannot answer, but I think they have a thorough grasp because they ask for the most detailed information, much more so than in former years. For instance, years ago the Trinity House used never to go into the question of money at all. They used simply to go into the question as a lighting question, as a marine question and leave the money question to the Board of Trade. Now the Trinity House has to be furnished with the estimates as to what the cost of work is, and whether it is a large or small work, and the Board of Trade always used to get the estimates, but I think the control is greater than formerly; not weaker.

5802. Is not what you say now rather an exaggeration of the dual control?—Well. I do not think so.

5803. That you have two bodies inquiring after the same thing?—Yes, but they are inquiring for different reasons. The one, of course, is inquiring into the money question; the other with the view of saying, supposing it cost very little, "I think it is a thing that ought to be done." If it was very expensive they would say, "Well, perhaps there is

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other work which would be better done this year," and postpone it. I do not think there is any clashing; dual control may be a bad thing, I am quite free to admit it, but I do not think this dual control does any harm, and before it is altered I would like to see it altered for something better.

5804. You think it could be altered?—I do not mean to say it could not.

5805. You would, as I understood, preserve Trinity House as a superior Authority?—I have no hesitation in saying that.

5806. But you think its functions might be altered in a way that would improve it as a controlling Authority?—Well, by giving it Ireland to deal with as well as England; no other way.

5807. That would be making it an executive Authority for Ireland?—It is the executive Authority for England, but I put that with a good deal of diffidence, because our Board has done its work well in the past, and I have no desire to see it disestablished.

5808. (*Chairman.*) If any change is made, that is the change you would like to see?—Oh, I have no hesitation in saying that, Sir. I think that would be the right change, but I would not put shipowners on the Trinity House any more than on our Board. They are an independent Board, just as we are; they may be old-fashioned and unusual in the present democratic state of things, but it works very well, and I know myself the Trinity Brethren take a very deep interest in their work, and, of course, they give their entire time to it, as they are paid for it.

5809. (*Colonel Herbert.*) Has it ever occurred to you that a representation of Scotland and Ireland on that Trinity House Board might be desirable?—Well, it would be a very difficult thing to bring about. It never has occurred to me, Sir; I would rather not discuss it. As I have said already, I think you will find it hard to deal with Scotland properly without a separate Board.

5810. I am not talking of abolishing the other Boards, but I am dealing with Trinity House as a controlling Authority which it is now over all the Boards?—I conceive just like our own Board, that, if it is to go on as it is, it ought to be left as a co-opted Board.

5811. Exactly as it is?—Exactly as it is. I think if you introduce elected or nominated members, you will surely, I say, spoil it; I think it is more independent as it is now.

Inspection: Value of, by Inspecting Committee.

5812. To turn to another question, that of your inspections; we had some evidence from the Secretary on the subject, and that was carried out; I daresay you may have seen it in the evidence?—Yes, I read his evidence.

5813. Oh, that was carried out by the Inspecting Committee?—Yes.

5814. It struck me, and I asked some questions at the time as to the necessity of such a large body of inspectors. In your experience has that got a practical value, or could it not be carried out as well by technical inspectors?—I do not think so at all. I think the personal control of the Board, as things are, is absolutely necessary, and as regards a large body, it is anything but easy to get a large body. Once or twice we have had, I think, six members going round and that has been very unusual. Very often we have been reduced to two or three; it is no easy thing to get men of business, and in the middle of the yachting season, to get men to go and give three weeks to it. I have done it as often as I possibly could, but I think I have done it by simply making it my holiday, for I take a great interest in the work, otherwise I could not have given the time, and several years have passed when I could not go; I had too much to do.

5815. Is it not an expensive form of inspection?—No, I do not think so at all; I think the cost is most moderate.

5816. You spoke of the increase of expenditure on inspections?—It costs less than it did in former days, I believe, because in former days it was done on a different principle. The members of the Committee were given two guineas a day, and they arranged for their own catering. Now it is just paid out of the £400 allocated for inspection and refreshments; I think it is a very moderate sum, I say it with a certain amount of diffidence, I consider it a most valuable inspection. Well, we have not often had the opportunity of either Board of Trade or Trinity House friends accompanying us, but we had on one occasion Lord Farrer (then Sir John Farrer). He came round the coast, and I know his opinion was that it was a very real and a very valuable inspection. We begin sometimes at 6 o'clock in the morning, and very often we do not end till 9 o'clock at night. Some people consider it rather a curious form of amusement, when they hear outside people call it amusement, but I can only say this, we visit each station and we go into everything connected with it, and it is, as I said in the beginning, the one main object that we know that everything is in order once in a year, at all events, and a complete inspection of that kind can only be done in summer weather. If you went at any other time you would miss so many of the places that the inspection would be very imperfect. Now, I think last year we did not miss a single station, we inspected every one round the coast; it means about six or seven in the day.

United Kingdom: Importance of coast lighting of,

5817. (*Mr. Ennis.*) You said, taking the general question of lighthouse administration as affecting the entire kingdom, that the coasts of the United Kingdom should be an object lesson to the world?—Yes.

5818. With regard to the efficiency of the lighting arrangements, and you also said that France and America spend money more freely than this country spends it on the services. Now, you would, of course, differentiate proper economy which can be effected without impairing efficiency?—Oh, of course.

5819. As compared with economy which could only be obtained at the expense of efficiency?—I maintained that the very greatest economy of the first kind should be observed.

5820. But that no economy should obtain which would in the smallest degree impair efficiency?—I mean by economy there, economy in not carrying out new works that ought to be carried out.

Advisory Committee: Tendency of, to reduce expenditure.

5821. Well, now I wish to ask your opinion; you have given us your opinion on several aspects of the operation of the Advisory Committee; do you consider that since the Advisory Committee was formed in the year 1900 the general tendency of the work of that body has been in the direction of starving the service or of promoting efficiency?—Well, now, that is a question that I do not know if I could give "yes" or "no" to. Starving the service is a large order, and I would not like to accuse them of that. I think they have, especially in the Scottish cases, set themselves very much against a great many new works proposals. Having done that is one of the things that makes me take rather a different view about Scotland and Ireland. I may add this, that in many of those cases where the Scottish Board were opposed by the Advisory Committee they had not the Trinity House with them, showing that a central authority might leave Scotland out in the cold.

5822. The Commissioners have had put in a list of works objected to by the Advisory Committee and a list of works recommended by the Advisory Committee?—Yes.

5823. The list of works recommended by the Committee cover less than a page; the list of works objected to by the Advisory Committee covers nearly four pages?—Yes.

5824. And in the list recommended by the Advisory Committee comes a work connected with your own service, the matter of the light on Rathlin Island?—Yes.

5825. That, no doubt, was recommended by the Advisory Committee, but the result as it is here was the Commissioners of Irish Lights submitted an estimate of £25,000 for the new light and fog-signal, and the Advisory Committee considered this too much, and the suggestion was dropped?—Yes.

5826. Though they recommended the light they were unwilling to spend money necessary to provide it?—That is exactly how it stood.

5827. And do you consider that was a light which in itself was needed and desirable, and was objected to by the Advisory Committee on the ground of cost?—In that case it was, but then remember that was a light proposed by them. If that light had been started by us or the Trinity House I would take a different view. We thought other things more important, otherwise we would have pressed for that. It was not a child of ours; not that we are opposed to it, because in that case we are very strongly in favour of it. It was not like Mizen Head, that any of us thought it unnecessary. I think it is necessary, but we have not brought

it up on our own account yet, because other things were more necessary.

5828. Putting on one side the paternity of the proposal, if the Advisory Committee or any other body recommend a work as being desirable, and afterwards object to it on the ground of cost, would you or would you not, holding the views you have expressed with regard to the lighting of the coast, describe that to be starving the service?—Well, it is very hard to say, if it was one that the General Lighthouse Authority and Trinity House were entirely in favour of, I think it would be very like it, but where it was one proposed by the Committee I think perhaps generally one feels that the proposer of a motion has the right to withdraw it. I would not use the word "starve." I think myself that when time allows it is a useful thing to do, and ought to be done, and certainly your figures there, which, of course, I am familiar with, show how many they objected to, but, on the other hand, the numbers that they brought forward have been very small, and the numbers that have been put before them have been very large; many of those that they objected to have been done. For instance, take Strumble Head.

5829. Yes, but I put it to you that the fact that the Advisory Committee objected to, I think it is, 24 works in Scotland, 16 of which were afterwards carried into effect, that does not lessen the objection by the Advisory Committee. The fact that they were afterwards overruled by a higher Authority does not lessen or minimise the effort in the direction of economy, possibly at the expense of efficiency, which was made by the Advisory Committee?—But you see the question of stopping the lights would apply to many of those, but it would not apply to Rathlin; Rathlin was their own case. The others were the Scotch Board's cases. They have been stopped for a time by the Advisory Committee. The Board of Trade have never held that they were in the least degree bound by the Advisory Committee's opinion. They have said "we will hear you, we will consider it." Take Strumble Head, which cost £14,000, the Advisory Committee opposed it strongly, and the President on that occasion said that they would consider it, and the result was it was carried out only with a contribution of £2,000 from the Great Western Railway.

5830. I would put it to you in this way: is it not a stronger line of action for a body like the Advisory Committee to take to object to a proposal which has been made by themselves than to object to a proposal which has been made from another source?—I do not know that one may draw any conclusions from that. One might infer they had made the original proposal without sufficient thought, or they had no idea it was going to cost money. We would say they had no idea of the place where they proposed the lighthouse, because it was one of the most inaccessible places; I would not like to carry it too far beyond what I said already, that their chief course has been trying to economise by stopping new works. And that case, Rathlin, being one of their own, shows that, very likely in a remarkable degree, though it did not strike me so much, as, being their own, one felt they had more or less a right to pass any opinion they liked upon it, because I think it is fair to them to say that they only had gone so far before as to agree to our sending in an estimate; they had asked for it, but it had not been in any way passed by them. I cannot say it had been adopted subject, or rather, with the estimate before them.

5831. You have also referred, I think, to other cases on the coast of England where the Advisory Committee objected to works, and you say it does not save money. I think it was the case of the Skerries you referred to —the Skerries Light—that it does not save money to that particular port, but does it not save money? Every objection that is made by the Advisory Committee of necessity saves money to the General Lighthouse Fund; is not that so?—It does, but it effects them very indirectly. The course that the Government have taken lately of reducing the percentage has saved some money, 20 per cent. taken off their dues.

5832. 12½ per cent. and 7½ per cent.?—12½ per cent. and 7½ per cent., that is 20 per cent.

5833. And naturally, therefore, constant pressure in the direction of economy, whether wise economy or otherwise, would tend to a lightening of the burden on shipowners in England?—To a certain extent you are right, of course, but as regards the Skerries that is a very remarkable case. I would have to condemn the Advisory Committee altogether for that, because it was most certainly a right case, and only a matter of £5,000; they delayed that, I think, over two years.

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5834. You are aware, of course, that the Advisory Committee have objected to several works proposed by your Board?—Well, I do not think they have stopped any works.

5835. I do not say stopped. The fact of their objecting—you are quite aware, of course, that the Advisory Committee is a body which possesses absolutely no statutory power?—Of course we know; we and the Board of Trade have no intention of being necessarily guided by them.

New Works objected to by,

5836. And therefore all the Advisory Committee can do is to recommend or object; their function ends there; first, the Skelligs, they objected to that?—They objected to that.

5837. They objected also to the Barr Point?—The Skelligs is a very peculiar case. The Skelligs is a case that we thought ought to be done. It is an island which has a very poor light on it at present, and we wanted a fog-signal and light put on it. We brought it before the Conference in a peculiar way. The Trinity House thought our proposal was too expensive; we rather make a rule never to bring a thing before the Advisory Committee Conference without having the sanction of the Trinity House, and we agreed with the Trinity House that we would bring it in and discuss before them that we would then ask the Conference, or rather, the President of the Board of Trade, who is the authority, to ask the Trinity House to send representatives, and to send his own representative to see the site, and we brought them out to the island when we were on our own inspection (Captain Frederick, Captain Clarke, and Captain Blake), and we left the matter to their decision. That is rather a different case, and it has been decided that a very small improvement is to be carried out at once. What we objected to was improving the old lighthouse by spending a great deal of money on a new light in an absolutely improper position, and these representatives reported that the old lighthouse should be improved by having a very fair light put into it without going to the heavy expense and a fog-signal. I think their decision was wrong; I disagreed with it, but, of course, under the circumstances we accepted their decision.

5838. The objections I am going into are the objections of the Advisory Committee to the dwellings for keepers at the Skelligs and Inishtearaght, and of the new steamer to replace the "Alexandra"?—Those were not really before them, and the Board of Trade held that the new steamer was not before the Advisory Committee; they withdrew it from the Advisory Committee. The dwellings we discussed, but those have all been carried out or sanctioned, but they were not lighthouses. If my own opinion were asked, I do not think they ought to be brought before the Advisory Committee, for they were maintenance works.

5839. This is the list of works handed in by the Board of Trade as being objected to by the Advisory Committee?—Well, of course, it is quite true they did object; they object to all dwellings, they object to all keepers' dwellings, and we have rather strong views—the three Lighthouse Authorities—that our keepers ought to be properly housed, and of late years the reason of the heavy cost of these dwellings is that it was a wretched thing having families on these outlying rock stations, and we have built dwellings on the mainland.

5840. They also objected to the re-erection of a lighthouse at Skelligs and of a light for the approach to Rosslare Harbour?—The erection of a lighthouse at Skelligs I have already explained; it never came up for sanction; it was only brought forward by us in that tentative way asking for the investigation; but, if I may venture to say, your view was quite borne out that they have objected to a great deal more than they approved.

5841. I am simply giving the figures as they are laid before us?—Oh, yes, quite so. What I stated was rather dealing with it, coupling the result with what took place; therefore, in our case, shall I say the Advisory Committee have very little interfered with our work.

5842. Without putting it exactly in the phraseology of "starving" the service, do you consider that the existence of the Advisory Committee since it has been formed in 1900 has or has not had a tendency towards

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economy as distinct from efficiency?—Well, I really could not say that I do. I do not like to say it has not done good; I think it has done good; perhaps it makes people think more, you know; but I do not think it has ever made us either abandon a work that we had brought up or not bring up a work that we thought ought to be brought up.

5843. You believe that the Advisory Committee is a desirable body, and you are also satisfied with your present relations with the Trinity House?—Certainly we are. I would qualify my view about the Advisory Committee by stating that it was a much superior body to what it would be introducing such elements on the Board, and that I thought, on the whole, it was good, and that is the way I put it.

Shipowners: Representation of, on Lighthouse Boards disapproved.

5844. In other words, you would prefer a non-official body, such as the Advisory Committee, possessing no statutory authority, to representatives of the similar interest sitting on the various Lighthouse Authorities with a reasonable share in the administration of these bodies?—Oh, certainly, that I can answer straight off. I think the latter would upset the entire present principle, and you would have to adopt a wholly new way of dealing with the matter either by a Central Authority or otherwise; it would mean doing so with the present system.

5845. Does it not occur to you that economy, if carried to too great an extent, might mean that the coast of some foreign country might become the object-lesson to the world, which you desire England to be?—Certainly, I think this Advisory Committee tends to that view. We are accused of going too fast, but I do not think that we have been going fast enough. We have been going in Ireland as fast as our engineering staff could go, therefore we can only say we have no right to complain.

New Works: Cost of,

5846. You have referred to a suggestion that your expenditure on new works each year should not exceed £15,000?—Yes.

5847. I understand you, and Mr. Cook also, have repudiated that as an arrangement which you never sanctioned?—We never sanctioned it.

5848. And the cost of the Fastnet Light alone would have eaten up six years' expenditure of £15,000?—Practically £90,000.

5849. Now, as to combined efficiency and economy, do you consider that the existence of three different Lighting Authorities in the kingdom, if the Authorities were worked on somewhat more similar lines than they are worked on at present to render a comparison between their individual services easier, that that would be a tendency towards economy, as it would create a competition between the different Authorities for combining efficiency and economy?—I think that exists at present; they are worked very much on the same lines. What I said before on that was, take our case and the Scotch Board. You get the Board for nothing. If you adopted any other plan you would have to pay for them; therefore economy would not be served.

General Lighthouse Authorities: Comparison of,

5850. Have you made any calculation at any period at your Board as to the relative cost of your service as compared with Trinity House and the Northern Lights?—I do not know that I have, but, for instance, take the cost of our lightships; it compares very favourably with Trinity House. In the case of the Scotch Board, we cannot compare it, because they have only one, and only one lightship will cost more than the average of 11; and other cases we have.

5851. Do you not consider, as the different Authorities work their business, there is a certain difficulty of comparison?—Well, of course, you have to make allowances for the difference, but there would be that in any case. For instance, take what I said about lightships. All our lightships are in exposed deep-water places round the coast. The Trinity House have a large number of lightships in the estuary of the Thames and other places, they are very much easier of access. You would have to make a variety of corrections in making the comparisons. Really, all you could do at present is to take the total cost of lightships and divide it by the number. Take the total cost of our lightships and divide it by the number, and it may or may not be an accurate comparison. As a general comparison it is good.

5852. As our Chairman has pointed out to you, the question of the incidence of the light dues is outside the purview of this Commission altogether?—So I understand.

5853. But, at the same time, the fact that the cost has to be borne by the shipowners affects the question so seriously that in almost every aspect of it you are brought face to face with the fact that the money has to be obtained from that particular body, and that fact has a certain effect upon the general working of the system?—I do not know that it affects the general working of the system now, because I hold that it is being worked as well as it can be; it has an effect upon the minds of the shipowners, because they think that they have a greater right to have a voice in the matter.

5854. You would agree that the users of the maritime highways are more than one class?—Oh, yes, a variety of classes.

5855. You have a big oversea trade, which, of course, as regards tonnage and importance in every way is considered to be the largest factor; you have the Navy; you have the coasting trade; you have cross Channel steamers; you have the Rosslare Light, the Skerries Light; both these are cases with which the needs of cross Channel steamers are undoubtedly more associated than the oversea trade?—The Skerries was much more oversea trade than cross Channel if you take tonnage; it is the turning point for all the Liverpool traffic coming up from the south.

5856. But it serves cross Channel traffic as well?—Yes.

5857. The users of these various lights may be divided into several classes?—Of course they may.

5858. Then you have the fishing industry?—The fishing industry, yes.

5859. An industry which, if properly developed, is of enormous commercial importance to the kingdom?—Of course it is.

Local lights: Provision of, out of General Lighthouse Fund disapproved.

5860. I think I understand your view to be that unless lights benefit passing trade they do not come within the scope of the duties of the Lighting Authority?—That is our impression. The fishing industry pays nothing towards it, and unless it benefits those people who supply the funds that has been the general rule.

5861. That just brings in the point that I have been already putting to you, that although we have nothing to say to the incidence of taxation, we are brought up against the fact frequently in the course of our investigation?—Yes.

5862. But your reply on that subject made rather clearer to me the replies to some previous questions where you spoke of the desirability of maintaining the Scotch Lighting Authority intact on the ground that in the case of Scotland a portion of the coast of Scotland had no godfather?—Yes.

Efficiency of lighting of coast of Ireland.

5863. Now if you do not regard the case of Ireland as being altogether one to be dealt with in the interests of passing trade, is there not a large stretch of the coast of Ireland which has no godfather either; if you regard the interest of the fishing community and other users would there not also be a very considerable stretch of the coast of Ireland, the placing of lights on which would not benefit passing trade?—I do not think there is a stretch where there are no lights. Take the coast of Ireland at present from Tory Island down to Tearaght, the passing trade is very small. There is a large trade passing Tory going to Scotland and passing Tearaght going up Channel, but between the two I have often gone from the one to the other without seeing a sail. But the lights are there, and the lights are very close together. There is only one stretch of the Irish coast that has not a light at present, and that is from Eagle Island to Sligo, along the north coast of Mayo. Downpatrick Head is the only place not lit, and it has always been held that the passing trade is so small that it does not warrant a light. There is a little local light guiding into the river Moy to Ballina; while in Scotland there are numerous places.

5864. As a Commissioner of very wide experience I should like to ask you are you satisfied that the lighting of the coast of Ireland at the present time is as highly efficient as you would desire to see it?—Oh, I could not say that; I always think that we should be moving onwards. The last improvements of ours with new lighthouses that have been put up, and the improvement of lights that were thought to be exceedingly good a short while ago, are all in the way of advancement. This replacing by the incandescent oil and the new lightship that is going to be placed off the south end of the County Down, we hope will be great improvements. Might I make one observation with reference to the numbers that go on the Inspecting Committee? You spoke as if they were large. The fact is, supposing we had the full number of six, which is about the

outside we ever had when we come to some of these outside stations, we save a great deal of time by it, because we will go away, two and two in three boats, and get three stations done in the same time as we would one, and the work is sometimes very much reduced, and as we have been often reduced to two and three it means more time and a good deal more fatigue, so we really never have had a number that was at all too many. I just wanted to say that.

5865. I think we were on the subject of the relation of your Board to the Trinity House and the Board of Trade?—Yes.

Control of Board of Trade and Trinity House over Irish Board satisfactory:

5866. That is the dual control that has been spoken of before, or rather, I should call it the triple control, because although the Advisory Committee has no statutory control, still you recognise that their recommendations or the reverse exercise a very considerable influence over the result of your applications?—Well they may have done so, but we have always considered that the Advisory Committee are pure and simple for the Board of Trade, not for us. The Board of Trade ask them for their opinion. We do not, as it were, consider it, not that we ignore it in the slightest degree, but it is the Board of Trade that have asked it.

5867. I take it that on general lines you are satisfied with the existing arrangements?—Yes, we do not suggest any change; that is the better way of putting it

5868. You differ from the Scotch Board in so far as the Northern Lights strongly object to both the existing control of the Trinity House and to the operations of the Advisory Committee?—We say nothing about the Advisory Committee because we consider that is the province of the Board of Trade, and instead of objecting to the Trinity House, we approve. I would like to put it in that way because it is stronger. We think that the Central Authority as regards, you may say, controlling the inception of new works is a necessity, and we think that if either of the others were independent absolutely it would destroy the harmony, and what shall we call it, the freedom from mistakes that might be made.

Local lights: Provision of, in Ireland.

5869. Holding the views that you have expressed with regard to the limitation of your functions into providing only lights that will benefit passing trade and not to take into consideration the fishing industry and other classes of users of the highway, do you suggest that fishermen, say, should be left without any provision for their requirements?—No; we conceive that in Ireland it is the Congested Districts Board's duty, or the Fishery Board's duty, one or the other, to find such lights. But, on the other hand, do not misunderstand me; if we were told that really the Lighthouse Fund does cover these we would be quite ready to do it for them, because we feel the necessity for fishing lights, and those very, very much, and it is only that we do not feel at present at liberty to spend the money on them, and we feel if we asked the Board of Trade for sanction they would refuse it.

5870. But you recognise that any seafaring men would have a claim to have their interests considered, whether it were to be done by your Board or not?—We recognise that the lighting of the coast, whether for local or general needs, ought to be as good as possible, but we do not feel at present we are the custodians of that part of it.

5871. But you would consider it desirable that it should be very clearly defined as to within whose sphere of operations such work would come?—We are informed by our law agents that the Congested Districts Board is a local authority. We had some discussion on that, and some doubt, some time ago. If a local authority applies for a light, we are authorised by Act of Parliament to give sanction, apart from the Board of Trade, without applying to the Board of Trade. Well, it used to be the grand juries, and we thought that that fell then upon the County Councils, but we are practically advised that it is the Congested Districts Board.

5872. The Congested Districts Board deals only with a limited section of the coast?—Yes, therefore you are quite right; if it were made quite clear it would be all the better.

Number of maintained by Irish Lights Board.

5873. Arising out of that, I should like to ask you this: Mr. Scott, I think, has handed in a list of thirteen lights which he says are of no practical value as aids to passing ships, or guides to necessary harbours of refuge, and he claims that it is inequitable that the maintenance of these thirteen local lights should be imposed upon your Board?—I could not answer that question without seeing it.

5874. We have a return handed in?—I would have to see the names of the lights.

5875. In these thirteen lights three occur as to which he gives the names of the local authorities that he holds ought to maintain them, Dunmore, Donaghadee, and Howth—the Board of Works. Do you suggest that the Board of Works should take over the cost of the lighting of these places, or do you suggest that the lights are not necessary for any purpose?—No, I do not suggest any such thing. I do not know on what Mr. Scott bases his opinion, but, of course, that is the Engineer's opinion. Looking at those lights from the widest view, Donaghadee, Dunmore and Howth were the first ports, the first three packet harbours from which mail steamers ran from Ireland to England, and I have always looked upon them as practically Royal Harbours, and those came to us from the Corporation for Preserving the Port of Dublin in 1854, and they are part of the local lights that were then taken over, and therefore they are our duty. Mr. Scott means that they are really not for passing trade; neither are they, but when you come to Dunmore, the southmost of those, the main outlying light on the other tower is, of course, a coast light, and also the entrance light to Waterford Harbour on the starboard hand, and I do not think I could agree with Mr. Scott on that.

5876. I shall ask Captain Bigham for the return when he comes back; I saw it yesterday?—Those three harbours are very much in the same position. From Dublin the mails went originally from the Pigeon House, which is in Dublin River; then, when Howth was constructed for that purpose they went from Howth, and then when Kingstown was constructed they went from Kingstown. And then in the same way Donaghadee was the port for one of the very early mail service between England and Ireland; even before steam sailing vessels used to go, and those have come over to us from the previous authority.

5877. (*Chairman.*) They are lights which in these days would be regarded as local lights, which it is proper for a local authority to maintain?—Quite clearly.

5878. (*Mr. Ennis.*) But Dunmore is a Royal Harbour?—Is it a Royal Harbour? Now Howth we know is; Howth is under the Board of Works the same as Kingstown, and, I think, Donaghadee and Dunmore are. On Dunmore was spent an enormous amount of money, on the inception of steam, but now, of course, it is only a fishing harbour really, nothing else.

Maintenance of lights between jurisdiction of General and Local Authorities.

5879. In your experience I take it that you have frequently found a difficulty in determining as to lights on what I may call the border line between the area governed by the General Lighthouse Authority and the area governed by local authorities?—Well, I do not know that we have had of late years. When a light is asked for that clearly was not a passing light, I think it spoke for itself except in those few cases I named to you, like Buncrana.

5880. But, of course, it goes without saying that you could not give to a local authority power or permission to place in a great fairway lights which must, if inefficiently looked after by the local authority, do more harm than good?—Of course, we could not.

5881. Take, for example, this particular case that you have referred to as having been objected to by the Advisory Committee, the light leading into the approaches to Rosslare Harbour; as you gave in evidence, the Great Western Railway Company have put a light on Rosslare Pier?—Yes.

5882. That, of course, is a local light maintained by them?—Yes.

5883. But supposing a light were to be placed—I think we have had evidence before from Mr. Cook or Mr. Scott as to the placing of a lighted buoy in the Shear leading to that—that buoy would manifestly be, if inefficiently attended, a danger to general navigation?—Yes.

5884. And therefore it would be a light which you could not possibly allow to pass from your own control?—We always held that that should be ours, and we recommended that we should get sanction for it, and it has been approved by the Trinity House and the Board of Trade, and it is now under us.

5885. I only instanced that particular light as one I have personal knowledge of—It is the last.

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5886. To instance what I mean that there is a kind of belt between the area of the General Lighting Authority and that of the Harbour Authority?—Yes.

5887. A Harbour Authority may most efficiently light their own harbour and yet that harbour may be practically useless to the Harbour Authority unless the General Lighthouse Authority facilitates it by putting lights outside?—In that case we held it was an outside light and it is altogether outside the jurisdiction either of Wexford or Rosslare, which are limited either by Act of Parliament or Order in Council. By Provisional Order they have limited jurisdiction, and Rosslare could not nor Wexford.

5888. The point I am coming to is that you recognise the responsibility on the part of the General Lighting Authority to provide efficient coast lighting to get vessels into the various harbours?—That would have to stand on each case; you could not give that as a general proposition; our present rule practically is passing trade.

5889. Would you regard as passing trade the coasting trade, which would go, say from a Welsh coal port to a port on the south or east coast of Ireland?—To lead into a harbour; we have not held it was our duty. You name rather a peculiar case, because you see the approaches to Rosslare are outside the jurisdiction of any local authority, therefore if we did not put it up nobody else would put it up, and therefore in that particular case we felt it our duty to recommend it, but I could not give that as a general conclusion, that you ought to put a light leading into any harbour; I would need to go into the particular case.

5890. I wish to arrive at the views of your Board on the question as to whether you regard the coasting trade with the same favour, or as deserving of the same care, as the oversea trade?—Well, we consider the coasting trade ought to be treated properly. I am naturally very much interested in it, because my own business is coasting trade pure and simple, but with regard to a light that is only to lead into a harbour, that ought to belong to the Harbour Board. Now, for instance, take Dublin Bay; Kingstown Pier Light is under us; if Kingstown Pier Light were to be established to-morrow we should not consider it our duty.

5891. But you would consider it your duty to have the Kish?—Of course we would, but the Kish is clearly a passing signal, and so is Howth Bailey.

Fog-signals.

5892. Then, with reference to light ships, I intended to ask you a question on the subject of fog-gongs; you intend to dispense with the fog-gongs and put reed signals instead of fog-gongs?—Oh, yes, that is arranged.

Irish Lights Board: Constitution of,

5893. But with regard to the constitution of your own Board, I gather from your replies to our Chairman and Colonel Herbert, that you do not consider a change desirable?—I say we suggest no change; that is the answer I gave.

5894. Yes, I understand that, but at the same time would you object to a change?—I gave my opinion on that already.

5895. Because you have said I think also that the Board are people who live in Dublin, and who can give an attendance, and that if members of your Board were to come from outlying harbours your attendance would not be satisfactory?—Well, I did not give that evidence. My objection to it was that having members from individual harbours, they would come there and they would be parochial, as I said, or having local interests, and I object to that altogether. There is another point, that if they had to come from a distance of course their attendance would not be so good, even if they were not connected with harbours. We have several times had members who lived far off from Dublin, and, of course, their attendance was very difficult. They had to pay their own railway fares.

5896. Your Board consists of 22 members?—Yes.

Attendance members.

5897. Are you satisfied—whilst it goes without saying that your own attendance and the attendance of a few other gentlemen are more than could be desired; that you seem to have given a wonderful amount of time and trouble to this work of lighthouse administration in Ireland—are you satisfied that the general attendance at your Board is what might be expected from the Board living in Dublin?—I am quite satisfied; though some do not attend so often.

5898. Mr. Cook has given us a return of the attendances, covering a period of some years, and I think he averages it as 9·2 out of a Board of 22 members. I have taken out the attendances myself from the minute book which you have handed in here covering a period of three months, and I make the attendances during that period to be 8.2 out of a Board of 22 members, and I also find that only 18 members of the Board gave any attendance; four members did not appear at all, and furthermore that of the eighteen, nine of them gave attendances at five or under of the thirteen meetings?—We are never short of a sufficient Board, and, as I explained already, the main points are reported on by the Inspection Committee. There is always an ample Board to deal with any questions. I should explain, there are three or four members who find it very difficult to attend.

5899. I do not mean at all to impugn the efficiency of the work done by your Board. I take your own case?—Eight or nine members are quite sufficient.

5900. It should be sufficient to do the work, but I doubt if I should consider an attendance of eight or nine members on a County Council to be an attendance that would satisfy me as Vice-Chairman?—Of course, that is another point; I never was Vice-Chairman of a County Council, so I cannot say.

5901. What I mean is, if you had a Board of twenty-two members, do you consider that an average attendance of nine is or might be considered a full attendance of a Board who are resident in Dublin?—There are five members we have no control over whatever—the ex-officio members—therefore we are reduced to seventeen; therefore we only talk of seventeen.

5902. Of the five members over whom you have no control, they have sometimes given some of these attendances; not many, perhaps, but they have given some attendances?—Sometimes they have attended very well. The Lord Mayor, of course, is ex-officio; the High Sheriff is now always a member of the Corporation, but he is not there as a member of the Corporation; he is there as High Sheriff of the City of Dublin, quite apart from the Corporation; and then the other three are elected annually, and it entirely depends on themselves whether they attend or not. We do not interfere with them; sometimes they attend; we have one of them now. We are always sorry if he is not there—Alderman Cotton—because he is a most efficient man in dealing with these matters.

5903. Yes, I see he has five attendances to his credit?—Yes.

5904. My point is really this, that the work of the Board, the attendance of a few members, seems to be admirable. They frequently attend the meetings, and seem to take the greatest possible interest in their duties, but do you consider it is an advantage to your Board to have a number of gentlemen on it who come very rarely, if at all? Do you consider that a man who only attends one meeting out of ten or twelve can have any proper grasp of the work of the Board with which he is associated?—Who is the man?

5905. I do not refer to individuals, I simply take the broad fact that the average attendance is 8.2 for that period out of a Board consisting of twenty-two members, and I therefore say that the great bulk of the attendances is given by only half that Board?—That is quite true.

5906. If you exclude from your Board as it is constituted seven or eight members, the work done by the remainder of that large Board would certainly not be work of an efficient character?—I do not quite understand that. Why not?

5907. I think you have yourself said; I think you have instanced a case in which a gentleman said that he required five years—a member of your Board—before he had a grasp of the work?—That was his own opinion; he gave it as against the annual election question.

5908. A very proper opinion, I would say, but would you not hold that a gentleman who was a member of this or any other Board, and only gave three or four attendances per annum to his work, was of no practical use to the Board?—It would depend very much who he was. I think there is one man who never attends. I think he is of great value to the Board; his mere name.

5909. (*Chairman.*) In what sense is his name of value to the Board?—He stands very high in every way, and I am sure he would give any attention to anything that was necessary, and, living down in Donegal or in London, it is very hard for him to attend.

5910. (*Sir Frank Adam.*) You mean, if you called upon him for any special work, he would do it?—He would do it, I am sure. But really, I put it more that I think the attendance of these eight or nine is ample. You put it rather in a different position, as to whether the remaining ones who attend badly are much use; I would hardly like to answer that question, but they are when they attend.

5911. (*Mr. Ennis.*) My question rather leads up to this, that if on other grounds it were desirable that representatives of Irish Harbour Authorities should be associated with the work, there is, manifestly from the attendance on your Board, room for them?—I could not answer in that way, because I believe the attendance of representatives from local Harbour Boards would be very irregular, quite apart from whose places they took.

5912. We have your view on that; I do not question that being your view?—I could not answer a question on those grounds.

5913. I mean, undoubtedly a considerable number of the members of your Board are members who might be replaced by others who would give a more active attendance—might possibly do so, presumably?—To get really suitable men is not always easy, and we take a great deal of trouble to do it.

5914. (*Admiral Henderson.*) What you really mean is, that for practical purposes a board of eight or nine is quite sufficient?—Is quite sufficient; I am glad you put it in that way.

5915. Would you put it at a less number than that, supposing you were to reconstitute it as a Board?—Oh, no, I think seventeen is a very good number, because you must have a good number of absentees in an unpaid Board. I am not always there myself, and it is those that Mr. Ennis says give so few attendances. They must be absent, and therefore you must have, you see, the number of the Board. The important things are governed by this Committee, which reports to the Board. I say that an attendance of eight or nine is ample to carry on the work of the Board, without passing any opinion on those who attend, as you say, comparatively seldom.

5916. (*Sir Frank Adam.*) May I ask you if you have a quorum?—Three.

Central [Lighthouse] Authority.

5917. (*Mr. Ennis.*) With regard to a question as to whether a Central Authority or a decentralised system is better, of course, so far as the case of Ireland is concerned, the present system is a centralised system. I mean it is a centralised system of administration?—Yes.

5918. You would be prepared to see that system carried further by, if necessary, abolishing the Irish Lights Board and centralising the work of Ireland, England and Wales, in the Trinity House?—Well, I say, I see no objection to it; as I tell you, we have not made any proposition or put it forward at all.

5919. The incidence of taxation, with regard to the cost of lighting, of course, is very much at the bottom of this inquiry, though we cannot touch it in its financial aspect?—Yes.

5920. But have you ever heard any shipowners raise the question since the year 1899 that the entire lighting of the port of London, in which the centralised authority of the Trinity House is situated, falls upon the General Lighthouse Fund?—Of course, I can give no evidence on that.

5921. Have you been aware of the fact?—I believe it is so, but I cannot give any evidence upon that, because it is outside my knowledge—my personal knowledge.

5922. Therefore, I take it, that your view would be that you would prefer either a continuance of the existing arrangements with regard to the constitution of your Board, that is the personal co-option, or, failing that, a transference of the power altogether to a centralised Authority in London?—Certainly.

5923. You do not believe in anything in the nature of a representative element being introduced on the Board?—No, I think it would be a mistake. Certainly, a representative Board for one part of the kingdom would be a mistake. That would have to be done for all parts of the kingdom, and I think this would be a mistake.

5924. You have referred to the evidence of Captain Boxer. I only just want to ask one question with regard to his evidence. What is the rent of the Dublin Office of the Board?—£400 a year.

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5925. How would you view the suggestion which was made by Captain Boxer that an economy could be effected by erecting offices on the ground belonging to the Commissioners at Kingstown?—I think it would be quite unworkable; I do not think we would make any gain by it. Our present offices meet the case very well.

5926. You do not consider an economy could be effected?—I do not.

Observation on Captain Boxer's suggestion as to Irish Lights office.

5927. Because £400 a year would provide interest on a very large capital expenditure?—We have no ground belonging to us at Kingstown; it is all Board of Works ground, and you can only erect one-storey buildings there; you could not erect proper offices at Kingstown. I do not know what gave rise to Mr. Boxer's suggestion. We have a very small piece of ground, which is all at present occupied by our stores. We had a good deal of difficulty when we left our former offices in finding a suitable place, and I have no hesitation in saying we were very fortunate in getting our present place, and getting it prepared for us at the rent of £400 a year. Our landlords paid everything.

Lighthouses: Cost of maintenance of,

5928. With regard to the cost of maintenance of various classes of lighthouses, your Board seems to compare favourably in that respect with other Lighthouse Authorities?—I believe so; we sent you in tables.

5929. But in the case of rock lighthouses, fog-signal with keepers, the cost considerably exceeds the cost of the other services, but that seems to be due to the fact that it includes rent, £8, and boat hire £232. Now, arising out of that, there is a question I should like to ask you?—I do not know those figures you are speaking of.

5930. This is the Tuskar; that is the particular rock lighthouse that you compare with the others?—Oh, yes, I understand.

5931. That raises a question that I am anxious to put to you. You will gather that the Commissioners find difficulty in some cases in comparing the cost of the different services, on account of the different methods employed by the different bodies. Now, one of the services that has struck me as desirable to investigate is the question of reliefs to rock lighthouses and lightships. We have it in evidence that the Trinity House relieve their lightships and rock lighthouses monthly; the Northern Lights relieve their rock lighthouses and lightships fortnightly; your Board appear to relieve practically every ten days?—Some fortnightly, some ten days. (*Mr. Cook.*) Lightships are relieved every ten days. At the majority of rock stations we relieve them once every fourteen days, but at some stations, like Tuskar, once a week.

Relief of rock stations.

5932. I take it once every ten days is a fair average to make of the reliefs?—Yes.

5933. I am particularly anxious to get your views on this, because it goes without saying that when we compare the cost of your service with the cost of others, it is only fair to take into account that you do a much more frequent relief than the other services?—(*Sir William Watson.*) Yes.

5934. The Commissioners would like to know whether once a month, once a fortnight, or once every ten days, is the most efficient method?—That is hardly for me. We are passing judgment on other people. We have considered the subject very carefully, and we think our reliefs are right. That is all I can say.

5935. Would you give us your ideas as to the grounds?—We have to go on what we think a fair and reasonable thing in dealing with the men. At some of these places, of course, the circumstances differ, and they are very uncomfortable places to be on, and their families are on shore, and we think it is reasonable to bring them on shore as often as that.

5936. Does the question of the providing of sufficient fresh provisions enter into it?—Yes, that is one of them; of course it does, because they get fresh provisions off by the relief boat. We can only say to that, that we think the times that we relieve are right.

5937. That is, in your opinion, the proper method of relief?—That is, in our opinion, the proper method of relief. That is all I can say.

5938. You would not say, I take it, that if you were

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to revert to, or if you were to adopt the system of the Trinity House, that you would save anything like two-thirds of the cost; you would make a saving, but it would not be a saving in proportion?—(*Mr. Cook.*) Well, Sir, we found in some cases at rock stations—Eagle Island and Black Rock, Mayo, for instance—the Board of Trade insisted that we should only supply them with provisions once a fortnight, and the boat contractor charged in the case of Eagle Island £5 a trip, that is £10 a month for once a fortnight, and previously we used to get two trips a week for £2, or only £8 a month. When the trips were deducted the local contractor increased the charge to £5. The contractor had to keep the men and the boat there. (*Sir William Watson.*) If it is a shorter relief, he still has the same men to pay, the same boat, and he expects a higher price. (*Mr. Cook.*) I do not think you would save anything; you would lose money by it. (*Sir William Watson.*) We think our system is right; we think it means the fresh provisions and proper relief of the men, and that we would save very little by the change. I suppose that is the best way of putting it.

Cost of stores and fuel for,

5939. Perhaps Mr. Cook might be able to answer this question better, with regard to the cost of stores and fuel in your lighthouses, shore lighthouses and rock lighthouses. I see in all these cases the cost of stores and fuel seems to be less in your service than in the others, which would seem to me to need explanation, looking to the fact that you have to import coal across the Channel, and that the others must necessarily have it at a lower price?—(*Mr. Cook.*) I know the other Lighthouse Boards get their coal at a lower price than we do; I suppose the economy is effected in carefully looking after the other stores that we issue to our stations.

5940. Have you as many siren signals as the people on the other side?—I could not answer.

5941. The fog-signals mean a considerable consumption of coal?—I do not know what happens at the Trinity House. (*Sir William Watson.*) Our price for coal is higher, much higher, than Scotland. (*Mr. Cook.*) We pay 35s. 6d. per ton for the house coal delivered into store at the lighthouses this year.

5942. You gave evidence, Sir William, with regard to the increased intensity which you obtained by the vaporised oil?—(*Sir William Watson.*) Yes.

System of calculating intensity of lights.

5943. I have taken from the Returns already furnished the intensities of the leading lights, and I think there are seven lights of an intensity of upwards of 200,000; the Fastnet, 750,000; Kinsale, 460,000; St. John's Point, 460,000; Bull Rock, 333,500; Galley Head, 315,000; Tory Island, 326,000; the Maidens, 270,000. What I want to know is, are these intensities calculated on the old system of burner, or are they calculated on the new?—The Fastnet, of course, is the new system; Kinsale is the new; St. John's Point is the new. I can answer those straight off. Bull Rock has not been changed; Bull Rock is a different system from any of the others. It is not coal gas, but it is oil gas. It is oil gas made in the gas works in the ordinary way, not incandescent. Galley Head is new, Tory Island is the old ordinary coal gas; Maidens of course is the incandescent oil. With those two exceptions—the Bull and Tory—they are the new.

Submarine bell fog-signals:

5944. Have you considered carefully the question of submarine bells?—Oh, we have had a good deal of consideration on it, but we have done nothing, because the Trinity House brought it forward at the Conference twice, and each time the Advisory Committee opposed it, and the Trinity House withdrew it.

5945. Well, do you consider that that is an instance in which the opposition of the Advisory Committee has tended to deteriorate, or to injuriously affect, an important service?—It is rather a curious case that. I understand the reason they objected was, they say these submarine bells are very useful, but that they ought not to be put on the Lighthouse Fund. Now, considering that there is no other fund at present to do it, that means they should not be put at all.

5946. It has that effect?—My friend, Sir Robert Ball, has just come back from America, and he had some experience on board the "Teutonic" of the wonderful effect, or the wonderful belief that her captain has in their efficiency.

Efficiency of,

5947. Have you seen the report of Colonel Anderson, of the Canadian service, issued in January, 1905, more than two years ago?—The Mersey Docks Board have fitted their lightship with one, and the Submarine Bell Company have fitted one of the City of Dublin Company's Liverpool steamers with the receivers. We are trying experiments, as I said, now on the City of Dublin Steam Packet Company's steamers with them, but our cross-Channel boats are all of light draught, and up to this the results have not been very definite. The Allan line, I think, had all their ships fitted, and they have taken the receivers out of them. I was doing everything I could to get the Kish Lightship established as a test place, and the Submarine Bell Company had undertaken to me personally that they would fix one of our Holyhead and Kingstown mail steamers if the Kish Light should be fitted, but, of course, we would have to go to the Board of Trade and the Advisory Committee for the money to get it fitted, as they would not fit it free as an experiment; and in the face of the Trinity House proposals having been withdrawn, we have not done anything as a Lighthouse Board. That is the way it stands.

5948. But do you consider the net effect of the proceedings which have taken place with regard to submarine bells in this country has been in the direction of making the coast an object lesson for the world?—No, they have done nothing; Trinity House had some very interesting experiments, but they have not followed them up.

5949. But you are aware, I take it, that this question has long since passed through the experimental stage on the other side of the Atlantic?—Yes.

5950. Off Anticosti and on the Lurcher Shoals, in the Bay of Fundy, there are lightships—and they are of the most modern type—lightships fitted with submarine bells, wireless installations, and electric lights?—Oh, I maintain the Trinity House have made a mistake. I do not understand why the Trinity House withdrew their propositions. I would have been inclined, if they were my own propositions, to have fought them and carried them, if I could; but it was a curious position to take, that it was a right thing to do, but not to come on the only Fund which was capable of providing the money.

5951. Still raising the old question?—That is a question on which I must say the Advisory Committee have done all they could to prevent them. Liverpool are putting them up and spending the money on them, but they paid for their installations.

5952. I think, probably, Sir Robert Ball will be able to answer this question better than either Sir William Watson or Mr. Cook. Do you consider the amount of money that has been granted for experimental work in connection with the Irish Lights has been sufficient in the past. Would you desire to have seen a larger allocation of funds for the purpose of carrying out experiments?—(*Sir Robert Ball.*) Well, I am not aware that any particular scheme of experiments that was contemplated has been prevented from being carried out by insufficient funds. *Experiments:*

5953. The cost of experiments for five years, I see, amounted to £928 1s. 4d., and the average per annum £185 12s. 3d.?—(*Sir William Watson.*) Yes.

5954. But have you excluded from that any experiment as to mooring a buoy in 80 fathoms of water, which was a pretty expensive experiment, and does not appear to have been very successful?—Oh, absolutely; that is the Highland Rock buoy, beyond any question particularly successful; that does not come under the head of experiments at all.

5955. It is given in the list of experiments?—It is an experiment of a different class to the other experiments of new forms of lights and things of that kind. That was a test experiment before putting out that particular buoy. It was an experiment in that sense; that was a necessary preliminary to putting out the buoy. The Board of Trade may have put that in because it was experimental, but it was simply to try that particular buoy before we put out an expensive buoy, which has been there now for over two years successfully.

5956. The total expenditure on Ferris Point was some £8,000, I think?—Yes.

5957. You are satisfied that the expenditure was judicious; you have been satisfied with the results of it?—I have no doubt if it.

5958. It included the gas manufacturing stations?—Putting all things together there, and preparing the gas works and the means of supplying the different gas buoys at Tuns Bank, Highland Rock, Hunter's Rock, off Down, and two other places.

Central Lighthouse Authority:

5959. (*Admiral Henderson.*) You stated in answer to a question from the Chairman that you do not consider that a Central Board would be more economical, but I did not understand you distinctly to say whether you thought it would be administratively more efficient; do you think so?—Well, it is rather a difficult question to answer; I am not prepared to answer it. You heard my view, on the Scotch Board it might or might not, but I am not quite clear; it could not be more economical, because it would cost more.

5960. I am not saying it would not?—Yes.

Trinity House Control over Irish Board.

5961. Now do you think it is advisable for the Trinity House to go into financial questions; they have been gradually increasing?—Well, that is rather a difficult question. If a person or a body has a right to decide a question it seems always to me difficult to say they are not entitled to get all the information that they require to enable them to decide the question, therefore we have not hesitated to give them money statistics as well as everything else which used to be done.

5962. But does not the fact of their doing it reduce the work of your Board and reduce your responsibility?—No, I do not think it does, because it is only to enable them to form an opinion.

5936. But it must increase the amount of work and correspondence and circumlocution?—To a certain extent. The estimates have to be prepared before they are sanctioned. The Board of Trade would have to get the estimates in any case. If the Trinity House in former days had refused before the estimate went forward the estimate would have been saved, but there always must be a preliminary estimate prepared before the thing is put forward.

5964. Do you think there is too much circumlocution in the present system?—Well, I would not say that; I do not think there is.

Representation of Shipowners on Lighthouse Authority disapproved.

5965. Do you think that shipowners have a right to special representation on any governing body?—Oh, no, I do not think they have. I do not see where the right comes in.

5966. Although they pay the dues?—Although they pay the dues. I look at the thing from its efficiency only. Well, I feel that I can, and our Board can, look at it in a very independent way, because we have nothing to gain or lose if the Irish Lights Board were disestablished to-morrow, except that we shall be relieved of a lot of responsibility.

Inspectors' duties.

5967. I want to turn to another point; the duties of the inspectors. You have one general inspector of all lights, buoys and beacons?—Yes.

5968. And he has to inspect every light twice a year at least, and report to the Board?—He has constantly to inspect them.

5969. And who has he under him for inspection purposes?—He has an assistant inspector.

5970. That assistant inspector is of comparatively recent origin?—Yes, only last year.

5971. Only appointed last year?—Last year.

5972. Because of the increase of work?—Well, we have been pressing for that for a long time.

5973. You felt the work was increasing?—Yes; in old days we used to have one, and we felt the loss of it in many ways. The Board of Trade persuaded us to have only one inspector years ago. When the inspector is out of the office it is very hard to carry on the work without someone in his place.

5974. The question of the fishing interests has been raised two or three times. I want to know whether you have any fishing steam vessels in Ireland, or any fishing interests in Ireland which you think legitimately should pay a contribution to the General Lighthouse Fund?—There seems a very strong feeling against charging fishing vessels.

5975. Because it has always been a custom?—I do not think there is any charge on fishing vessels in Ireland, but there are on the east coast and the south coast a good many steam trawlers belonging to Waterford and other ports.

5976. Who make use of the sea lights?—Oh, they do, of course.

5977. A question has been asked of the other Boards as well about the Notices to Marines. Do you think there can be any increase of efficiency and economy by having one Authority to distribute Notices to Mariners?—I think the present system works well; each Authority ought to send out their own.

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Notices to Mariners.

5978. They ought?—Yes.

5979. Because at the present moment you have each Lighthouse Authority issuing Notices to Mariners, and you have the Admiralty and the Board of Trade doing it as well?—The Board of Trade, do they issue? I am not aware that they issue.

5980. Yes, weekly and monthly, and the Admiralty daily?—If there was any one Authority there would be a saving in that, that is clear.

5981. Do you not think with one Authority there could be some arrangement?—I am not prepared to say there could not be at all.

Local Lights: Maintained by Irish Lights Board.

5982. Have you anything in Ireland which is analogous to the port of London? London, as you know, is lighted entirely by the General Lighthouse Fund in contradistinction to the other ports of the kingdom, have you anything in Ireland which is analogous to that?—Only to a certain extent in certain parts; for instance, take Limerick, the first five lights, including Loop Head, are under our charge altogether. That, I think, is the only case that at all corresponds, up to Rinallan Point and Beeves Rock; there are Loop Head, Kilcradan, Skattery, Tarbert and Rinallan Point. All lights from that up to Limerick Quay are under the Limerick Port and Harbour Board.

5983. It is a small matter comparatively?—Still it is a long distance.

5984. But it is a small matter compared to the port of London?—The lights and buoys up to Beeves are all under our charge.

5985. (*Chairman.*) The lights in Queenstown Harbour, are they not under your charge?—Yes; but that is only up to the Spit Bank, and the whole way up the river is under the Cork Harbour Board.

5986. Spit Bank would come under the same heading?—Yes.

5987. (*Mr. Ennis.*) But in both of these cases, in the case of Limerick and Cork, there are Harbour Boards?—There are.

5988. Who carry out lighting requirements in the harbours. It is only a question of the line of demarcation between you and them, therefore it is not analogous to the port of London?—No; I was only pointing out it was analogous to it in the part over which we have charge.

Lightvessels: Cost of,

5989. (*Admiral Henderson.*) One or two questions I wanted to ask about details of expenditure, and any figures I give are based on the estimates and accounts for 1905-6. I see, on the question of lightvessels the cost of the three Boards for 1905-6 was £73,060, £19,322 and £1,302. Well, if you average those at 52 for the Trinity House, 11 for the Irish Board, and one for the Scotch, it means that the Trinity House average £1,405, and your average is £1,756. Can you give any reason why your average should be greater?—(*Mr. Cook.*) For how many years is that?

5990. A comparison of the cost of a lightvessel—the total cost. The actual expenditure on lightvessels was £73,060 Trinity House, £19,322 Irish Lights Board and £1,302 Northern Lights Commissioners. The Trinity House state they have 52 lightvessels; that is not including the spare ones; you have, not counting the spare ones, 11; that averages £1,405 for the Trinity House and £1,756 for you?—(*Sir William Watson.*) Well, we believe that our actual maintenance per lightvessel compares very favourably, but we have 15, not 11, including spare ones. I cannot answer those figures, because they would want to be dissected. (*Mr. Cook.*) I would want to see them.

5991. You have an item in the estimates of £1,453 for boat hire; is it a reason that you are more costly because you relieve your lightvessels by boats entirely?—Very probably that will be one reason, Sir. (*Sir William Watson.*) That may be one portion.

Relief of.

5992. But you do relieve your lightvessels by boats?—Yes, entirely.

5993. You do not make use of your steamers for that purpose at all?—(*Mr. Cook.*) No. The vessels are so seldom there; we must have a regular system of reliefs

5994. You do not think the number of steamers you have is sufficient to do it properly?—(*Sir William*

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Watson.) It would be quite impossible to relieve them with our present steamers in addition to their present works.

5995. Of course, you are able to do it by boats at that rate very much more cheaply than you could by tenders?—It would be quite impossible to relieve them by our present tenders; quite impossible.

5996. As to lighthouses, your total number is 74 and one fog-signal; that is 75. I am comparing you now with the Scotch Board. The Scotch is 80 and 9 minor lights. Your expenditure for 1905-6 was £34,630, as against £34,949; that is, your expenditure is nearly equal. I am speaking of lighthouses, because that is where you can get a comparison. Can you give any reason why, comparatively, the cost of your lighthouses is greater, considering their smaller number, than the Scotch Board?—We have more rock lighthouses, number one; of that I am certain.

5997. The number of rock lighthouses, you have 14 island stations and 39 shore stations, against 22 island stations and 55 shore stations of the Scotch, and 18 rock against their 12; you have rather more rock?—The rock stations are the expensive stations.

5998. And you think that that would account for the considerable difference, considering the difference in numbers?—Yes, because some of the larger stations have 6 keepers, and at practically all other rock stations there are 4 keepers; these are expensive stations to maintain.

5999. In your estimates for oil and lighting stores, I have compared the estimates for 1905-6 of all the three Boards. Where is the item for fog-signal stores shown?—Fog-signal stores; there is a regular heading for fog-signal stores.

6000. It is not to be seen in the estimates. There is for the Trinity House fog-signal stores, £2,750; neither the Scotch nor the Irish have any headings at all?—I cannot understand that; there is a regular heading for fog-signal stores in the summary of Abstract "A" and "B."

6001. In the estimates?—Yes, Sir.

6002. We will look at the estimates afterwards; I have been unable to discover it?—(*Sir William Watson.*) There must be. (*Mr. Cook.*) There must be.

6003. You have got fuel for fog-signals, £1,701?—Fuel for fog-signals; I will explain it to you afterwards.

6004. The total expenditure under the head of stores was Trinity House £9,921, Irish Lights Board £6,740, and Northern Lights Commissioners £5,978. You are ahead again here of the Scotch Board in the stores; that is, for a smaller number of lighthouses?—A lot of the Scotch lights are unwatched lights.

6005. Even with that you have got 80 against 74; 80 fully-manned lighthouses against your 74, if you take it on that line?—A lot of those Scotch lighthouses have got a very small staff; they have only one keeper at some stations.

6006. It is just the same with repairs. Your repairs are £4,583; that is your estimate, and the Scotch are £4,219. I am speaking of lighthouses alone. Have you any reason?—We have the shore dwellings for these extra rock stations.

6007. Is the repair of a rock station more?—The dwellings have to be kept in a state of repair—constantly in repair. A house at a seaside place requires repair annually.

6008. Special repairs, I notice, you had only one item for an alteration or conversion, while the total number of alterations put down for the Trinity House was thirteen; for the Scotch Board, fourteen. I see you did carry out two alterations or conversions under the head of new works. Did you carry out any other conversions that year, and where are they shown?—I could not answer that.

6009. In the special repairs there are fourteen conversions, thirteen conversions to incandescent oil for the Trinity House, and twelve for the Scotch Board, and one alteration of light put down for the Irish Board £100; but are you complete; are all your conversions complete?—Oh, no, Sir; we are most anxious to get them all converted.

6010. Why did you not put down for more conversions, considering you had the wind cut out of your sails by the Trinity House and the Scotch Board?—We have several lights we wish to alter to incandescent, but the engineering staff being occupied with important works at the Fastnet, have not had time.

6011. Would you say the engineering staff, being fully occupied, had no time for anything more?—Yes.

6012. You have plenty of other conversions in contemplation?—Oh, yes, as soon as we can get them done. The Commissioners are most anxious to proceed with the conversions; they would save money by it.

6013. The total cost for repairs, ordinary and special, was £8,028; the Scotch Board £6,782, speaking again of lighthouses. There, again, you are in excess of the Scotch?—You really cannot make any comparison for a single year. It is quite impossible; something may have gone wrong at one of our stations, which would cost £2,000 alone, and thus account for an apparent excess.

6014. For a special repair?—Yes.

6015. You have no big sum at all for special repairs in this year. Now, with your steam tenders, the average, as I make it out, is £4,044 Trinity House, £4,899 Irish Lights Board, and £4,675 Northern Lights Commissioners. Can you give any reason why your average is greater?—Well, our steam tenders are regular ocean going vessels, having crews similar to the "Irene" of the Trinity House, or the "Pharos" of the Northern Lights Commissioners. We have only two. Trinity House have only got six, eight, or ten of standing crew in their smaller vessels, and then they use their liberty lightship men to make up the complete crew to carry out the work, tending on lightships, relieving lighthouse stations and shipping buoys; ours have a full crew of about thirty-five.

6016. The reason, you would say, is that your vessels are rather larger, and they have to do more ocean work?—More ocean work.

6017. Now, your district storehouses; do you do any repairs in the storehouses?—Oh, yes, a large amount of repairs.

6018. Minor repairs; you keep mechanics?—Yes.

6019. That principle is the same as Trinity House in that respect?—I could not say what they do at Trinity House; but I believe it is the same as Trinity House.

6020. The "Tearaght" was under refit from the 25th January to the 10th April—forty-four days. Is not that rather a long time for one of those ships?—(*Sir William Watson.*) I could not say without knowing what the principal works were.

6021. It appears to me, in looking through the logs, they are rather long under refit. As a shipowner, do you keep a good weather eye on them in that respect?—I have had ships under repair longer than that; it depends; a mere survey might take half the time.

6022. Yes, but for small vessels of that sort; you can turn them inside out in less than six weeks?—May I say, without knowing any of these questions I would not undertake to answer, without knowing all the work that was done.

6023. I want to know, do you think there would be any economy at all if the Boards were allowed some sum for contingent expenses instead of having to refer every penny of expenditure to the Board of Trade?—I do not see why it should. Sometimes there is delay in getting sanction, but I do not think it affects it seriously. The other might lead to extravagance, it might lead to extravagance, having the money at hand.

6024. You might want to spend it?—It ought not to be, and I do not say that it would, but it might.

6025. (*Chairman.*) We have only to thank you for the evidence you have given?—I am very much obliged to you for the manner in which you have received us.

6026. Sir Robert Ball, you are Scientific Adviser to the Commissioners of Irish Lights, and were appointed to that post in 1884, I think?—(*Sir Robert Ball.*) Yes, that is so.

6027. Previous to that you had been a Commissioner?—I had been a Commissioner for a short time, yes; a year or two.

6028. In 1892 you were appointed Lowndean Professor of Astronomy and Geometry in the University of Cambridge?—Yes.

6029. But still continue to hold the position of Adviser to the Irish Board?—That is so, yes.

Scientific Adviser to Irish Lights Board: Duties of,

6030. Would you shortly describe to us the duties which you carry out as Scientific Adviser?—Well, the first duty I would mention is to submit a report to the Board whenever the Commissioners ask me for an opinion on any matter relating to lighthouse work, which they think to be within the province of the Scientific Adviser.

6031. I think you are prepared to put in a list of the reports that you have made?—Yes, I have a list at the end of this *précis* of the various matters that I have been asked to report on. Well, then, the second duty; I consider it my duty to witness, and sometimes to conduct, experiments on lighthouse matters, when requested by the Commissioners to do so, and to report to them thereon, and I have given illustrations of that.

Experiments witnessed by

6031a. Perhaps you had better mention the illustrations?—An early illustration is 20 years ago now, with the famous South Foreland experiments, that were conducted by the Trinity House for the purpose of testing the comparative merits of gas, oil, and electricity, as lighthouse illuminants, especially in fogs. That was a very elaborate and extensive inquiry. I paid visits to Dover during the weeks that the experiments lasted, and when I was not there the Commissioners placed an assistant at my disposal, who attended and took careful observations, and reported to me weekly about it. Then other illustrations; after the Bull Rock was first lighted in 1889, I went down with Sir William Watson and other Commissioners. We made many experiments there with the powerful gas apparatus in the Bull Rock lantern, which involved some new problems. On a more recent occasion, in 1901, I reported on our Engineer's (Mr. Scott) important experiments on incandescent lights at Kingstown, which we have had so often mentioned here to-day, and the latest work of this kind was the testing in Kingstown last June of Sir Howard Grubb's beautiful device for an unlighted beacon by the use of three rectangular mirrors, availing himself of a very beautiful optical principle. When a light is sent into these three mirrors at right angles, no matter at what angle it is sent into that corner, which is a rectangular corner of three rectangular mirrors, the light is returned in the same direction, the idea being that it would be useful in the case of an unlighted beacon, because if one of those sets of three mirrors was put up on a rock, anyone throwing a beam in that direction would get a light returned, and so see exactly the spot where it is.

6032. Do you regard that as a useful invention?—The principle of it is beautiful. Practical questions will arise about its applicability, but it certainly was a very beautiful application of a very beautiful optical principle. I also accompany the Commissioners, when requested to do so, as a member of a deputation on matters connected with lighthouse affairs, and in which the Scientific Adviser's presence is deemed useful by the Commissioners. I will give as an illustration —it was a long time ago—when we attended at the Board of Trade about the introduction of hyper-radiant lenses at Tory Island. There are three great points which have entirely revolutionised the modern principles of lighthouse construction. One, of course, is the incandescent lights, of which we have already heard much; the second, earlier, of course, in point of date, is the introduction of these hyper-radiant lenses. The hyper-radiant lenses employed now in the Fastnet are about 5 feet 6 inches in height. That, of course, was a very great advance upon the small size, about 3 feet, which were used before. These hyper-radiant lenses were introduced first into the Tory Island light, and there was a considerable discussion at the time. It involved large additional expense, and we had a deputation to the Board of Trade. I think Lord Stanley of Alderley was President of the Board of Trade at that time.

Duties of,

Important modern Inventions in Lighting Apparatus.

6033. While you are on the subject of the improvements which have of recent years been introduced into lighthouse work, would you mention the third?—The third is flotation of the lenses in mercury.

6034. That was a French invention, was it not?—It was really used by the astronomers first of all for mounting some of the heavy telescopes. They took to floating them in mercury. Then it was adopted by the Lighthouse Authorities, in France, I believe, first, and now we have adopted it here.

6034a. The other two inventions originated in the United Kingdom, I believe, did they not?—I believe the incandescent lights did; the hyper-radiant lenses, I think, were first constructed in France.

6035. In France also?—Yes.

6036. The use of incandescent oil?—The use of incandescent oil; I am afraid I could not say for certain where that originated; I think the Trinity House had it. (*Sir William Watson.*) I think that was in England; the hyper-radiant lenses was in France. (*Sir Robert Ball.*) Those three beautiful inventions have all interlocked, so to speak. They have acted and reacted on each other. The old lamp, which was about 8 or 9 inches in diameter, had a very large flame, whether it was an oil lamp or a gas lamp, and you cannot construct optical apparatus that is perfect except for an illuminated point, so that the lenses that we put round were correct for an absolute point, and the lamp was only approximately correct for the greater part of the flame, so that precision of character could not be given to that light when the flames were very large. Then, of course, one of the great advantages claimed for the electric light was that it brought the light down to a point. Well, the incandescent is a change in the same direction. The incandescent burner, even on the Fastnet, is quite a small thing, about 2 inches in diameter and 3½ inches high, and then this is put with those hyper-radiant lenses, which are much further from it than the old lenses used to be. The light becomes practically a point on the scale of the apparatus, and consequently we get the advantage of having a perfect optical arrangement. When you have added your hyper-radiant arrangement you can make the character of your light what you desire it to be. The third modern improvement in the flotation of the lenses is the floating on mercury. The chief advantage of that is that the friction is reduced to about one-eighteenth part, and this is taken advantage of into two ways. First of all, you can quicken the character, which is one object. We have always been striving for years to get the characters quickened, so that the flashes succeed each other more rapidly, and that can be done. We can now turn the revolving part so much more easily; these large frames and lenses are very weighty. Their weight varies, but it has to be expressed in tons, but now it floats with one-eighteenth of the friction that it used to have, and you can make it go faster. That again is another advantage, because if you increase the speed you can diminish the number of faces, instead of having, as we had in Mew Island, six faces, and in Galley Head eight. That is to say, at Galley Head the whole light was divided into eight parts, so that each flash gets one-eighth of the light; but now, as we can make it go so much quicker, it suffices to put four faces at the Fastnet, and each of these gets one-fourth of the light, so that the various improvements act and react on each other. Those three inventions, taken together, have really quite transformed lighthouse lighting. Then I am sometimes consulted by the Commissioners as to the replies that should be sent to querists who write about various matters. Very often they are of varying degrees of importance, but the last query related to certain phenomena connected with fog-signals in the lightships on the coast of County Down, something connected with those puzzling silent areas which make fog-signals so difficult, and which make us hope so much that these submarine signals which were mentioned just now will remove a good deal of the difficulty attending fog-signals. Then I have held it to be a part of my duty to represent to the Commissioners any improvements that seemed to me desirable in the scientific part of lighthouse work. I have already practically mentioned the chief illustration of it. For 20 years, in common with Lord Kelvin, if I may associate myself with him for the moment, and others interested in lighthouse improvement, I have steadily urged the importance of making the characters of the lights show themselves more rapidly than was the case when I joined the service. We have incessantly urged the shortening of the flashes as far as safely could be done, and also the diminution of the intervals between the flashes. These principles are now generally admitted. The Fastnet, perhaps, is the best illustration of them. We have got four splendid beams of light; the whole system revolves in 20 seconds, so you get a flash every five seconds. The captain of the "Majestic," on which I travelled back a few weeks ago from the United States, told me he had seen the Fastnet 47 miles away —has seen the flashes of the light. I regard that as a high testimony to the efficiency of it.

Scientific Adviser: Duties of,

Sir W. Watson, D.L., *Sir R. S. Ball*, LL.D. F.R.S., *Mr. H. G. Cook.*

15 May 1907.

6037. Then you also, as a general rule, accompany the Commissioners on any of their cruises of inspection?—I have done that for many years. I have accompanied the Commissioners on their annual cruise of inspection. I have rarely failed to join the ship for at least a part of the cruise round Ireland, and I make a complete circuit whenever I can. I can only recall at the present moment one occasion during the last twenty years that I did not join. I think I am correct in saying that I have visited every lighthouse, and probably every lightship under the management of our Board. All the important lights, and, indeed, most of the others, I have visited many times. I may mention, for example, that I have visited at almost every stage of their progress, from commencement to completion, the great new lighthouses built within 20 or 25 years on New Island, Tory Island, and Bull Rock, and the Fastnet. During these trips, as Sir William Watson has described, there is constant work—five or six stations visited every day—and there is incessant discussion on lighthouse affairs, and everything connected with them, and the Scientific Adviser is often called upon for an expression of more or less informal opinions on many questions that arise.

6038. Would it be part of your duty to report upon apparatus—illuminating apparatus—for instance, the lenses supplied by Messrs. Chance?—Yes, it would; I have had to go to Messrs. Chance's works in Birmingham, to examine lenses that were being manufactured for the Board, and I have had to test lenses in their works at Kingstown, and then we had a number of tests of the Tuskar, I remember, when it was put up first. However, that more relates to temperature than anything else; the probable effects of the temperature in the lantern.

Illuminants: Relative advantages of,

6039. (*Mr. Ennis.*) With regard to the comparison between gas, oil and electricity, you have referred to the fact that in fog the electric light is not so effective as the other forms of illuminant, candle-power for candle-power, of the same intensity?—Yes; candle-power for candle-power, that is so.

6040. I take it also that the candle-power obtainable by electric light is so infinitely greater than the candle-power obtainable by any other system that you can in practice erect electric lights capable of carrying a greater distance than any other form?—That is so with the forms we tried on that occasion; there was a very striking illustration of it one night at the South Foreland. They erected three lighthouses there, temporary lighthouses. They had oil in one, gas in the other, and electricity in the third, and then they laid out a course of a mile, and they had posts driven in, so that if fog came on we could feel our way from post to post, and know exactly where we were, and the distance between us and the lights. On two occasions we had very fortunate fogs for the purpose, and we tested it both ways, both starting with the lights and going backwards from them, and then coming along this line of posts through the fog. In each case the electricity was the best; but it is just as you say, candle-power for candle-power the others would have been better; but then the electricity had such enormously greater candle-power as to more than make up for this difference, and consequently the electricity did last the longest.

6041. Is it not true that experiments have been made with a new beam of yellow light, I think, for use with the electric light, which would enable it to carry further through fog? I think we have had evidence on that point?—I could not answer about that. Possibly, what it might do would be to cut off a great deal of the light that was incapable of passing through the fog, and show all the light that was left. A larger percentage might get through the fog, but that really would not amount to an improvement.

6042. But with the rapid increase in the size and speed of ocean-going steamers, electricity would eventually, I should say, be desirable in such a station as the Fastnet?—Well, I do not really know. There have been no comparisons yet made between the efficiency of electricity and incandescent. There was no incandescent at the Foreland, you know.

6043. Of course, electricity is infinitely more expensive?—Yes, infinitely.

6044. But, assuming that economy was not a consideration; that in a certain class of particular circumstances, where it was desirable that the light should carry as far as possible, I assume that nothing yet discovered has been able to compete with electricity?—Well, I really do not know; I could not say whether an electric light on the Fastnet at the present moment would be better than what we have got.

6045. It would carry further?—Well, I do not know; I do not think it would. The Fastnet carries to the horizon quite easily, as we saw it in the series of experiments we made; they are largely recorded in the book. I daresay the book has been sent to this Commission. We found how beautifully it carries to the horizon, and, as I mentioned, the captain of the "Majestic" told me he had seen the Fastnet 47 miles away.

Projection of vertical beam of light.

6046. I am aware that shipmasters have been under the impression that some of the big French electric lights—Grisnez and some of the other lights—had a vertical beam projected upwards from the tower, because of the immense carrying power of the lights, and when hull down the light was seen over the horizon?—To a certain extent that is perhaps little more than an optical illusion. Calais light looks as if the beams were going over your head, but they are intended to shoot parallel with the horizon.

Length of flashes.

6047. You spoke of the subject of the flashes; what is the speed of the flashes at the Fastnet, that is, the length of the flash?—It is about a fifth of a second or a little less.

6048. Because it has been represented to us by nautical witnesses here that flashes of one-tenth of a second, as in some of these big French lights, are too rapid; that it is impossible to get the bearings, by reason of the rapidity of the flash?—I have heard that said, but at the same time the nautical authority that I consulted recently told me that a flash, such as the Fastnet, a fifth of a second, is quite right; they can take a bearing quite well.

6049. Three-eighths of a second; but then the one to which exception was taken was one-tenth?—We have not got any of one-tenth of a second at all.

6050. Nothing so rapid as that?—No.

Fog-signals:

6051. With regard to the fog-signals, Sir William Watson referred to Rockall. I asked some questions on that point myself, because it was represented to us that to carry out experiments in fog-signalling, in sound signals, I mean, at any time except when there was a dense fog was practically a waste of time and money; and if these experiments were carried out in a time of dense fog, they had a tendency to mislead vessels and run vessels ashore. I asked a question, whether Rockall might not be just the place for experimenting with fog-signals, but I was informed that it is to a certain extent in the track of passing ships?—There was a proposal to erect some time ago——(*Sir William Watson.*) That is a very dangerous place to experiment in.

6052. What is your opinion of the Canadian diaphone?—(*Sir Robert Ball.*) I do not know; I am not acquainted with it.

Areas of silence of,

6053. But in any case, I take it that anything in the nature of a sound signal for fog is liable to the area of silence, which is not a constant quantity?—Oh, I think it is.

6054. It depends on temperature of the air, or something else, that will vary; therefore the area of silence to-day may be an area in which the sound may be perfectly heard to-morrow?—Oh, quite so.

6055. There is no scientific method by which that can be overcome?—I believe not, because that is in the atmosphere, which is not under control.

SEVENTEENTH DAY.

Tuesday 18*th June*, 1907.

PRESENT:

The Right Hon. G. W. Balfour (*Chairman*).

Sir Frank Forbes Adam, C.I.E.
Colonel L. J. C. Herbert, C.B., C.M.G., M.P.
Vice-Admiral W. H. Henderson.
Mr. M. A. Ennis.

Captain C. Bigham, C.M.G. (*Secretary*).

Mr. H. Llewellyn Smith, C.B., Permanent Secretary to the Board of Trade, called in; and the Hon. T. H. W. Pelham, C.B., Assistant Secretary (Harbour Department), Board of Trade, recalled; and examined.

6056. (*Chairman.*) Mr. Llewellyn Smith, you are Permanent Secretary to the Board of Trade?—I am.

6057. Have you anything to add to the evidence given on behalf of the Board of Trade by Mr. Pelham and Sir Thomas Blomefield with regard to the existing state of affairs, and the relations between the Board of Trade and the General Lighthouse Authorities?—No, I think not. If there are any additional questions which the Commission would like to put, I should be glad to answer them to the best of my ability, but I think probably you would find it more convenient to get that from Mr. Pelham. I understand that the point on which you desire I should say something is whether the Board of Trade has any views as to the nature and constitution of the Authorities who manage and control the lighting of the coasts of the United Kingdom.

6058. Quite so?—Rather than on the details as to the existing facts. On this I should like to speak with some reserve. Of course, I have not heard the witnesses that have already appeared before you, though I have had the opportunity of glancing generally through some of their evidence, and, moreover, there are financial questions which I understand are not within the scope of this Inquiry, but which must naturally have a considerable bearing upon the question of management and control.

Administration of Lighthouses by Board of Trade: Deprecated.

6059. Several witnesses have suggested to us that the lighthouse administration might best be reformed by sweeping away the existing Authorities altogether, and transferring their duties to the Board of Trade?—Well, of course, if Parliament put the duties upon us, we would do our best to discharge them, but I think the feeling of the Board of Trade is that the ordinary departmental organisation is better suited for the purposes of general control than for the purpose of the detailed management of a large business of this kind. Of course, there would be no great difficulty if desired in constituting some special sub-department or special board under the control of the Board of Trade, which should undertake this work, but the Board of Trade have great doubt as to whether an arrangement of that kind is a desirable one. Whether it would conduce to economy is a matter I should rather leave you to form your own judgment upon. I have already said that financial considerations will naturally be of importance, but the Board of Trade, as you know, is already an overworked Department, on which new duties are continually being thrown by Parliament, and however much we decentralised the administration by the constitution of a special sub-department, the ultimate responsibility would have to be with the heads of the Board of Trade. I think that we should view with something like dismay the prospect of having to add to our very multifarious functions the detailed management of the lighthouse system. It is comparatively easy to set up the necessary machinery, but the real difficulty—which I do not see how we could quite satisfactorily overcome—is the growing congestion at the top of the department. We could not get rid of the ultimate responsibility.

6060. On the whole, therefore, you would deprecate placing the actual management of the lighthouses, and the initiative in constructing new works, on the Board of Trade?—Yes, we should. We think that the controlling powers of the Board of Trade should in any case be preserved, but that they should be mainly directed, as at present, to the more negative task of controlling and checking expenditure. There is one point, and only one, of initiative, that it might be well perhaps to give to the Board of Trade—I shall return to it, if I may, later—and that is, it is for consideration whether the Board of Trade should not be clothed with the power, only to be used in extreme cases, of requiring a Lighthouse Authority to carry out a work which the Board was satisfied was urgently necessary. If I might say something about that later I should be glad, but with that exception we think that the present powers of financial control are those which should be entrusted to the Board.

Mr. H. L. Smith, C.B. *Hon. T. H. W. Pelham*, C.B. — 18 June 1907.

6061. Your objections to placing these duties upon the Board of Trade, I notice, rest principally upon the amount of work which the Board of Trade has to discharge?—Very largely, yes.

Might not promote economy.

6062. On questions of economy, that is to say, whether a Government Department would, on the whole, be more economical or less economical than the existing Authorities, you would prefer not to express an opinion?—It is a somewhat delicate matter upon which to express an opinion, but it must be obvious to the Commission that in a case of this kind, where the potential demands for lighting all round the coast are practically inexhaustible, there being scarcely a part of the coast where some sort of case could not be made out for some advantage resulting from an extension of lighting, it would be difficult always to maintain economy.

6063. Do you consider that difficulty as likely to increase in proportion as the principal needs of the great trade routes have been met, and money is available for lighting those parts of the coast in which the local interests are more concerned than the general interests?—Yes, I think that is so; I think it is a growing difficulty.

Would necessitate sub-departments in Scotland and Ireland.

6064. A Government Department would always be subject to a considerable amount of political pressure by its supporters?—There always is that difficulty, yes. Of course, we should endeavour to resist such pressure, but I do not know how far we should always be successful.

6065. Do you also think that administration by the existing Authorities would, on the whole, be more likely to deal fairly with distant interests, such as those of the coasts of the north of Scotland, than a central authority?—I think you might pay very dearly if you weakened local interest in these matters. I have a word to say about that later. I do think that if the Board of Trade or some other central department were entrusted with this work, we should have somehow to decentralise, we should have to have some local sub-departments in Scotland and Ireland.

6066. The question of who shall pay the cost of lighting the coasts is not before this Commission, but perhaps you would tell us whether, in your opinion, if the administration were transferred to a Government Department, that would not inevitably tend to bring in its train a change in the existing system of levying light dues?—It would certainly be very anomalous for a Public Department to have a direct responsibility to Parliament for efficiently carrying out this service, and be limited to a particular fund. I do not know,

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however, that there is very much in that, because we have power to increase the light dues if we find them insufficient.

6067. Well, then, putting aside the proposal that the management of the lighthouses should be undertaken by a Department of the State, a second possible suggestion would be to entrust it to a single Board, which would take over the lighting functions of the Trinity House, and the Scotch and Irish Boards. Have you remarks to make on that suggestion?—The most usual form in which I have seen that suggestion made, is that the Trinity House should be the Authority for the United Kingdom. Of course, there might be a new Board which should absorb them all. It seems to me that a very strong objection is likely to be raised both in Scotland and Ireland to the abolition of the separate administrations, and, subject to some provision for securing some degree of uniformity, it seems desirable in itself that the actual current administration should be to a greater or less extent decentralised. There might, and probably would be, some economy in having one central staff of officials, but I am not sure that that would not be too dearly bought by the loss of local knowledge and the weakening of local interest. I am quite sure that the proposal would be pretty strongly opposed.

Central Lighthouse Authority: Would be disapproved.

General Lighthouse Authorities: Reconstitution of, considered

6068. A third possible scheme is to maintain the three General Lighthouse Authorities as at present, acting under the control of the Board of Trade, but so far as may seem necessary to reform their constitution?—Yes, that seems, on the whole, to the Board of Trade to be, subject to the evidence that you have heard which we have not, the more hopeful line, to maintain three bodies. Of course, the present constitution of all the three Boards is anomalous, and they differ very widely among themselves. You have the facts of their constitution so very fully before you that I need not labour that point. If we were starting a new system of lighthouse administration, I cannot think that we should dream of constituting any Board quite on the lines on which any of these three Boards is constituted, but if you are satisfied from the evidence that the practical working of those three Boards is satisfactory, the public in this country are not usually disposed to attach very great importance to logical consistency or symmetry of constitution. How far that is the case, how far they are working satisfactorily, is a matter on which you have had a large amount of evidence, and you will form your opinion on that, a much better opinion than I could give. I feel that as regards the reform of constitution, much depends on what your finding is. If you find that any of these Boards is inefficient or extravagant, of course it will be necessary no doubt to suggest the appropriate remedy. If, on the other hand, you find that in practice they have been efficient and business-like and economical, the case is different. On the other hand, of course, the mere fact that for a certain period of time a Board or a public authority has worked well in practice, does not absolutely close the question as to the desirability of improving its constitution. It may be, for example, that it has been fortunate in its officials, or some accident may make a very anomalous Board work well, but there are other questions to which more or less weight must be attached—for example, the confidence which it gives to the public or to the various interests concerned, and how far there is security that the efficiency of the Board will be permanently maintained.

6069. Is there any particular direction in which you would suggest that the constitution of the Boards might be usefully reformed?—I think our opinion is that the absence of nautical experience among the members of the Scottish and Irish Boards is, at all events *primâ facie*, a source of weakness. At present it is remedied more or less by the control which Trinity House exercises over new works. They have the benefit of the nautical experience of Trinity House, but it is worth considering whether some direct representation of persons of practical nautical experience on these Boards is not desirable. Of course, in the Trinity House all the Acting Elder Brethren have nautical experience, but on none of the Boards is there any representation of shipowners as such. I believe there are some shipowners on the Irish Board, but not *qud* shipowners. And there is something to be said for taking steps to secure the presence on each of the Lighthouse Authorities of one or more shipowners. That is the view of the Board of Trade. There is a precedent for that in the case of Trinity House, in the constitution of their Pilotage Committee. There there is a shipowner and a pilot who are elected I believe by the payers of Thames Conservancy dues. I have made some inquiries, and am informed that that is an arrangement which has worked advantageously. Of course, the addition of shipowners to the Trinity House itself or to the Committees which deal with lighthouse matters would be a larger proposition than the addition of a shipowner to the Pilotage Committee, which has comparatively small and local duties, meeting once a week. The lighting duties involve continuous attendance, and the meetings of the Board and of the Committees which deal with lighting are much more frequent in the aggregate than that. There might be some difficulty of attendance. And, moreover, the lighting duties of Trinity House being national and not local, the method adopted of selecting the shipowners would be inapplicable, and there is no quite satisfactory means of selecting shipowners' representatives. If, however, you determined that it was a good thing, I have no doubt that the difficulty could be overcome. I could make a suggestion if it would be of interest.

6070. Yes, I think we should be glad to have any suggestion you care to make?—You know that there are no shipowners' associations—no single shipowners' association—which can be said adequately to represent all classes of shipowners, but it might be possible for some Department, say the Board of Trade, to have the power of nominating some shipowners after consulting the various organisations concerned, in the same way as, Sir Frank Adam will know, we nominate members to represent the commercial community on the Commercial Intelligence Committee, after consulting the Associated Chambers of Commerce. They supply us with a list of names, and we select, and that has worked, I think, very satisfactorily. But in any case, the main object of the appointment would not be to secure the control of the operations of the Lighthouse Authorities in the interests of shipowners; it would rather, I imagine, be to ensure confidence that, in coming to any decision, the point of view of shipowners has been fully considered, and for that purpose the number of the representatives, whether they are in the minority or a majority, is really not a vital matter at all. I am not able of course to say how far the different Lighthouse Authorities themselves would welcome the addition of shipowners. I think I saw in some of the evidence from the Trinity House that they would not oppose it.

6071. I think the Trinity House and the Northern Lights Commissioners both said that if this proposal was pressed by the Commission they would not oppose it, but neither of them thought that it would be an improvement upon the existing arrangements?—No.

6072. The Commissioners of Irish Lights were strongly opposed to it from every point of view?—They were opposed to it? Well, that partly answers the point I raised, but perhaps you could hardly expected a Board to be very enthusiastic about any change in its constitution.

6073. I think their argument was that such an addition to their body would create friction, without putting the case of the shipowners better before the Lighting Authorities than is now done by the Advisory Committee?—I shall have something to say about the Advisory Committee, but really the Advisory Committee, as you know, is a body to advise the Board of Trade. It is not in direct contact with the Lighthouse Authorities. At the annual conference there are representatives of all the Authorities present, but it is really a body that we have called into existence to advise us of the point of view of the shipowners and others, when we are considering sanction to proposals for new works.

6074. But do you think it would be advisable to put a representative of the shipowners on these Boards for the purpose of criticising the ordinary administrative work?—I should rather put it, to invite the assistance of shipowners in carrying out the administrative work. I very much doubt whether they would be purely critical. Perhaps that is a bold attitude to take, considering the fact that they themselves are not pressing for this reform.

6075. As you are aware, we have not had the advantage of any evidence from the Advisory Committee, who declined to accept the invitation we sent to them, but there has been one representative of the

shipping community, Mr. Norman Hill, whose evidence was decidedly adverse to the suggestion that one or two representatives of the shipowners should be placed upon the Lighting Authorities?—Yes, I saw that; I read Mr. Norman Hill's evidence, but the shipowners of course will not look at any of these questions of administration apart from their campaign against the payment of light dues just now. They perhaps can hardly be expected to, and if they thought that this was offered to them, so to speak, in satisfaction of that claim, of course they would not take it, nor perhaps in lieu of the Advisory Committee. If the Commission do not think it an improvement from the administrative point of view, they will probably not recommend it, but it seemed to me that somebody with nautical experience and somebody experienced as a shipowner would be a really advantageous addition to these lighthouse bodies, not as a concession to an interest at all.

6076. I rather think the Northern Lights Commissioners distinctly stated that they would welcome the addition of a nautical representative on the Board, either as a member of the Board or as an assessor?—Yes.

6077. But I presume that if a nautical expert were placed on the Scottish Board it would be necessary to pay him?—Yes, I should think so; I should think probably that would be the case. I rather had in my mind two elements, the nautical—I mean something like a retired ship's captain, such as the people from whom the Elder Brethren are selected—and a shipowner, as representing nautical enterprise from a rather different point of view.

Advisory Committee:

6078. If that proposal were adopted, it would not, I understand, be your suggestion that it should take the place of the existing Advisory Committee, but that it should be additional to it?—Yes, I do not think it would take the place of the Advisory Committee; the Advisory Committee, I think, must be judged separately. It is a body to convey to the Board of Trade the views of shipowners as a whole, and not only shipowners, but also underwriters and merchants, about proposals for new works, and I do not think putting a shipowner or two on the separate Lighthouse Boards would take the place of that. It might, however, improve the working of the Advisory Committee, especially if these representatives were also on the Advisory Committee itself, so that they formed a link and informed the Advisory Committee better than they are always informed now of what are really the reasons for the different proposals. I think that they would be a valuable link.

Trinity House control over Scotch and Irish Boards: Value of, to Board of Trade.

6079. If nautical members were appointed upon the Scottish and Irish Boards do you think it would be desirable to free those Boards from the control at present exercised over them by the Trinity House?—I think it would diminish the necessity for that control, but I think that if such a change were made, if the control of the Trinity House were taken away, the Board of Trade in receiving proposals from the Irish and the Scottish Boards would desire to be free to avail themselves of the nautical experience of Trinity House by consulting them, so that it would not make a very great change, whether the proposals came through the Trinity House to the Board of Trade, or the Board of Trade consulted the Trinity House. I am not sure in those circumstances whether there is a sufficient reason, from an administrative point of view, in making that change, and I do not know how far it has been pressed upon you to make a recommendation of that kind—to abolish the control of Trinity House—by the Scotch and Irish Boards; I rather think by the Scottish and not by the Irish. I think they were divided, if I remember right.

6080. The Irish Board rather welcomed the interference and control of the Trinity House; the Scottish Board are decidedly adverse to it; that is my recollection of the evidence given before us?—Yes; well our view is that we attach importance to having the opinion of the nautical people at Trinity House on these proposals; that if they come to us direct we should desire to be able to refer them to or consult Trinity House. Beyond that I do not know that we have much choice.

6081. It is indifferent to you whether you act as the controlling Authority advised by Trinity House, or whether Trinity House is the controlling Authority with an appeal to the Board of Trade? That is the present arrangement?—Yes, but we can still refuse sanction, even if the Trinity House had given statutory approved. We have the ultimate voice at present, not only in cases of disagreement referred to us on appeal, but in all cases.

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6082. If an addition were made to the existing Boards by appointing a representative of the shipping community on the Trinity House Board and a representative of the shipping community and a person with nautical knowledge on the other two Boards—what method of appointment would you propose?—For the shipowners I have already suggested that if it was desired, I think the Board of Trade would be prepared to select shipowners, after consulting the principal shipowners' associations. I think direct election would be almost impossible.

6083. And the nautical member?—Well, that is more difficult. I do not know whether the Trinity House themselves might select. I suppose they have a large number of younger Brethren all over the country who have nautical experience, from whom they could pick somebody, or you might trust to co-option by the Scottish and Irish Boards, with the approval of the Board of Trade. Or, again, we might appoint, as with the shipowner, after consulting with the necessary interests. I fear I have not any very definite proposals to make to the Commission.

6084. There is no definite proposal on that subject which you wish to put before us?—No.

Attendance of Members of Scotch and Irish Boards.

6085. The criticism has been made that many members of the Scottish and Irish Boards do not in practice attend the meetings. Would you propose to put forward any suggestion to meet that criticism?—If you are proposing any reconstitution of those Boards, it would seem an opportunity of cutting off some of those that in practice make very irregular attendances, or no attendances at all. No doubt, as I think has been said, there are always sufficient people in continual attendance to do the work effectively, but it is not generally a good principle to have in the background a number of people who do not usually turn up, but who might be whipped up and swamp the others at a crisis. I do not know whether anything of that kind has occurred, but on the face of it it is not a good system.

Superannuation of Elder Brethren.

6086. The representatives of Trinity House informed us that they would welcome any proposal for pensioning off the more aged of the Elder Brethren. Do you think that would be a desirable thing to do?—Yes, we sympathise with that desire that they should have an age limit of superannuation.

6087. Do you think that could be arranged without increasing the present remuneration of the Elder Brethren?—Yes, I should think so. At the present time I understand that the more aged Elder Brethren either do not come, or come very seldom, and draw their pay less the fines for non-attendance. Well, that in a kind of superannuation, and I presume that all that would be necessary to add would be a rule that they should not be allowed to attend. I suppose at present it is at the option of the aged member, who might come and claim his full money.

Advisory Committee: Value of to Board of Trade.

6088. As regards the working of the Advisory Committee, do you think that the Board of Trade have derived advantage from the appointment of that Committee?—Yes, I think we have. My experience of it only goes back really for about a year. I have only really had to do with one meeting, and I cannot speak of it in the earlier stages, but I think it is valuable to us now. I think we do derive value from its advice, and that might be expected to increase. Of course, as I mentioned, there is no doubt the benefit would be greater in some ways if the shipowners did not happen to be so much engrossed with their campaign against the payment of light dues. That colours to some extent the proceedings, but that can scarcely be avoided at present, and I would say decidedly that we do derive benefit from the Advisory Committee.

Board of Trade control over Lighthouse Boards: As to Power of initiative with regard to New Works.

6089. Well, there remains the point to which you have already referred in your evidence, and to which you asked to be allowed to return—namely, should the Board of Trade in the last resort have power to require the Lighthouse Authorities to carry out any works that the Board is satisfied are necessary?—I would desire to say that, in making any suggestion of this kind, I have not in my mind any case which has come before me, in which it would have been desirable to exercise this power. My own experience, of course, only extends over a very limited time. But theoretically, no doubt, there is a possibility of a deadlock occurring, and it might be well that we should have the power in the last

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resort of insisting on our requirements being carried out. But if so—and this is my chief recommendation—I would desire that it should be so guarded that it should be very rarely used, so as not to weaken the authority of the Lighthouse Authorities. They are the bodies who are responsible for the efficient lighting of the coast, and for that purpose I would suggest that there ought to be safeguards; for example, that we should advertise the matter, hear objectors, hear the Lighthouse Authority, and possibly hold a local inquiry before we made an order requiring the works to be carried out. I should not wish it to become an ordinary thing to be used on slight provocation.

6090. Do you not think if you had that power it would open the door to the political pressure of which we have already spoken?—It might, but I do not like from an administrative point of view a state of things in which there is the possibility of a deadlock.

6091. On the other hand, you do not know of any deadlock having actually arisen?—None within my rather limited experience. I do not know whether Mr. Pelham's experience, which goes back further, would enable him to know?—(*Mr. Pelham.*) There have been one or two cases, and it has been rather unsatisfactory; the Lighthouse Authority has said we will do it if you will take the responsibility. We have got no statutory power really to take the responsibility to order the thing to be done; it ought properly to come from them. As a matter of fact it does not come from them, but they agree to do it because we wish it.

6092. That has been a practical way therefore out of any deadlock?—That has been a practical way, but it does not seem to me to be very satisfactory.

6093. On the other hand, it would be impossible for the Board of Trade to disclaim responsibility, as they now do, on the ground that the initiative for new works rested with the Lighthouse Authorities and not with the Board of Trade, if such a power is once given to the Board of Trade?—That is so. (*Mr. Llewellyn Smith.*) I should be very sorry if such a power were given in such a way that this would be the result, because I feel that any sharing of the responsibility with the Lighthouse Authority is a serious matter. I should like any power to be only used in extreme cases, such as those which might justify the Local Government Board in over-riding a local authority.

6094. But cases which would justify the Local Government Board in overriding a local authority are not quite on the same footing. The danger here is that political pressure might be brought to bear upon the Government to carry out on their own initiative, or to insist upon the Lighthouse Authorities carrying out works which the Lighthouse Authorities themselves have not considered necessary?—Yes, I see the force of that very strongly, and I think there ought to be ample safeguards, such as local inquiry, and perhaps a report presented to Parliament stating reasons; I am free to admit that there are considerable objections such as you indicate, but I thought it my duty to intimate that that is a point on which it is conceivable that there might be a deadlock.

6095. I only want to elicit your considered views on the matter?—My views certainly are that the power if conferred must be safeguarded in every possible way; it must not be possible to say that the initiative has been transferred to or shared with the Board of Trade.

Trinity House control over Scotch and Irish Boards: Nature of,

6096. (*Colonel Herbert.*) Has it ever occurred to you as an anomaly that the Trinity House being an administrative body should also be a controlling authority over the other Authorities, from an administrative point of view?—Yes, the whole system is so full of anomalies.

6097. I think it is getting to the root of the anomaly when we take that point; that was my reason for asking?—They only control new works, you know; they do not control the ordinary administration of the other bodies.

6098. Well, it has come out to us in evidence that they have so much practical control of financial expenditure owing to that control over new works that it becomes a very considerable control?—I do not know that we should take the view at the Board of Trade that the Trinity House control really was a financial control at all; we are the financial controllers. It is rather primarily an expert nautical control. They might have to ask for information about the cost of a thing, because of course, whether Trinity House could recommend it or not must to some extent depend on financial considerations. You cannot keep out financial considerations altogether, but they have not the power of the purse.

6099. No, but it amounts to this from what we have been told in evidence, that the Board of Trade has not the means of exercising the technical control, and therefore they are dependent upon the expert knowledge of the Trinity House, which is pretty much the same as putting it in the hands of Trinity House?—Has that been put to you in evidence? The Board of Trade are not destitute of nautical expert officers. We act on the advice of our own nautical adviser, but no doubt we do greatly value the nautical experience of the Trinity House people. I do not know whether you have had evidence from Captain Frederick.

6100. (*Chairman.*) Yes?—You have had our Nautical Chief Adviser before you.

6101. (*Colonel Herbert.*) It was expressly stated here that this was only one of very multifarious duties which he has to perform for the Board of Trade?—Yes, that is so.

6102. And it was that I elicited in examination carefully from Captain Frederick, and continued the same point in the examination of other witnesses. I leave the matter in the hands of the Chairman as to whether I am stating the case absolutely correctly or not, but I have taken a little time to look up the references, and that is the impression on my mind?—Certainly for expert advice, so far as our own staff are concerned, we are practically dependent upon Captain Frederick, and if the Trinity House control over the other Boards was removed we should have probably to strengthen that in some other way, either by adding to our own people or, as I suggested, by consulting the Trinity House people.

6103. (*Chairman.*) All this refers entirely to new works?—Oh, to new works entirely; Colonel Herbert, you know that.

6104. (*Colonel Herbert.*) Oh, yes, I quite understand that; but still, the new works mean the larger part of the expenditure?—Oh, no, I think not; I think the current expenditure is a good deal more; maintenance. (*Mr. Pelham.*) Yes, it is. (*Mr. Llewellyn Smith.*) The proportions between the two would vary from year to year, of course, but it is not the majority. (*Mr. Pelham.*) About £80,000 out of £450,000 for new works.

Central Authority to replace Board of Trade: Views as to,

6105. Following that idea in my mind, which you have been able to follow, whether you agree with it or not, it occurred to me to ask you whether you think a solution might be found by setting up a separate controlling authority in the form of Commissioners controlling all the three Authorities, and consisting of persons selected for their technical qualifications, and not in the haphazard manner which prevails in the selection of Elder Brethren?—(*Mr. Llewellyn Smith.*) Yes, I have had that in my mind, and it is one possible solution of the whole question. It would not be free, of course, from the criticism that it would be centralising, unless you had branches in Scotland and Ireland.

6106. It would naturally lead to a modification of all the Authorities controlling the English, Irish, and the Scottish Lights?—Yes.

6107. That, of course, would have to be another part of the scheme?—Yes, and then you would take over the functions of the Board of Trade with regard to control, I take it; or would you leave anything with us?

6108. My impression is to take it from the Board of Trade, to relieve the Board of Trade?—You would take it all over; then the administration and the control would be in the same hands.

6109. Yes?—I am not sure how that would work. At present, of course, behind every Department there is the Treasury—I mean there is the financial control by another Department. We act as the Treasury to these Lighthouse Authorities; you would make the Treasury and the administrating Department the same. I have rather a doubt about that.

6110. I asked Mr. Pelham a question with regard to the Treasury, how the Treasury came in in this matter, and I understood that practically the Treasury came in less here?—It does not come in at all, because we administer the Fund, and we have to sanction expenditure. What I meant was that I do not know of any

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precedent for the financial control and the actual administration being both centralised in the same Office. At the present moment, we at the Board of Trade are, so to speak, the Treasury, and the Trinity House and the other Lighthouse Boards are the Administrative Boards. But if our functions and all the functions of those Boards were centralised in one Board would you not have to still have some financial authority to sanction expenditure?

6111. That I have always thought of as being the Treasury?—That involves, of course, putting an end to the system of light dues. I only pointed it out, that unless that was part of the scheme there would be a difficulty.

6112. There might be an objection, of course, to that, from the fact that the light dues do not constitute any part of the Imperial Revenue?—If the light dues were abolished, and everything were thrown upon the money provided by Parliament, the Treasury would be the natural financial authority.

6113. You have given us your views on several solutions, and this is another solution upon which I think you have not touched?—I am afraid I could not go beyond pointing out that it would involve this much larger financial change, which I understand is not within your scope, and I am not authorised to express an opinion upon.

6114. Exactly; but from the purely administrative point of view and the efficiency of the lighting service, do you think that such a scheme as I have sketched would be possible?—If you come to the conclusion that the present three Boards are not only anomalous, but work badly, and that their constitution should be reformed, then you will have to consider whether you will reform it by having three new Boards and a controlling Authority here, or a centralised body such as you now suggest. In my evidence I rather leaned in the direction of three than one. I understand you are putting to me a scheme now for one rather than three.

6115. Three local ones; also a modification of the existing local administration; but this is a central controlling body in lieu of the mixed control that there is now by the Board of Trade and the Trinity House?—This new body would simply exercise the powers of control that we have, and that, subject to us, the Trinity House have. The Trinity House have not any ultimate powers of control at present; I mean there is always an appeal to us. All I can say is that we do not cling to the powers. If you come to the conclusion that another body would exercise them better, I do not think we have any feeling in favour of retaining them. I did not know that any suggestion had been made of that kind, so I really have not considered it, of abolishing ourselves.

6116. As to the present position, you said, I think, yourself, it is not one that you would choose to set up?—No.

6117. It has grown up?—It has grown up.

6118. And if we are going to modify it—I really throw this out as a suggestion—I should like to have your views as an expert administrator on that subject?—Well, as regards the control I do not see—unless, of course, we have exercised our powers inefficiently, and there would be reason on that ground for transferring them—I do not see that there would be very much gain. If our power of getting expert nautical advice at present is insufficient, we can quite easily appoint more people. Captain Frederick could have a staff. There is no difficulty in it at all from an administrative point of view, and I do not quite know what is expected to be gained by transferring it. This kind of function with regard to the coasts is very much *ejusdem generis* with many of our other functions, with regard to the mercantile marine, harbours, foreshores and wrecks, and so on. I do not know that we could say that it is of a kind so distinct from all these others that it is anomalous that it should be with the Board of Trade; I think we are the natural Department to exercise it. At the same time, we have got so much to do that we certainly do not cling to it.*

6119. Besides the control of the other Lighting Authorities, there are also the local lighting authorities, and it seems to me that a body of Commissioners who would exercise a control over all these Lighting Authorities would be more likely to act—well, shall we say in a logical manner—than the present system, which is a haphazard system?—So far as any authority is exercised over the local Harbour Authorities, it is exercised you know by the Board of Trade at present.

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6120. Yes, that we have heard?—Yes.

6121. But there is also a control vested in the other Lighting Authorities?—In Trinity House.

6122. In Trinity House and in the Irish and Scottish Lights?—Yes.

6123. (*Chairman.*) Inspection?—Yes.

6124. (*Colonel Herbert.*) Inspection; it is a dual administration?—I am afraid I have not considered the matter of the inspection of local lighthouses by the Lighthouse Authorities. If you would like to know how far it has worked well—it has not been a matter about which I expected you would be asking questions, and I have not prepared myself, but I will go into that with pleasure if it is of any interest to you.*

6125. (*Chairman.*) It would be worth while to leave this matter, perhaps, for Mr. Llewellyn Smith's consideration?—I understand your point to be whether it might not be desirable to transfer the powers of control now exercised by the General Lighthouse Authorities over local lights to some central Department or the Board.

6126. (*Colonel Herbert.*) Perhaps I might state the general scheme that is in my mind is that of a body of Commissioners—we will say similar perhaps to the Ecclesiastical Commissioners or the Charity Commissioners—who would assume the general administration and financial control over all Lighting Authorities; that is to say, not only the great Lighting Authorities, but the local lighting authorities as well; the General Boards, such as the Trinity House, the Irish Lights, and the Northern Lights remaining in their present position, but with a modified organisation?—Yes.

6127. (*Chairman.*) That would practically be the substitution of a new organisation for the Board of Trade.

6128. (*Colonel Herbert.*) For the Board of Trade?—And for the controlling powers of the General Lighthouse Authorities.

6129. The Board of Trade would then be relieved; the question that would have to be considered would be the representation of this Authority in Parliament?—Yes.

6130. It would have to be represented in some way?—Yes. I should not like to express an opinion off-hand about that general scheme; you would hardly expect that.

6131. No, this is the result of cogitation; I only throw it out for what it is worth. I should like to have an opinion, because from your point of view possibly things might come out which have not been seen by me?—You have mentioned two Commissions—the Ecclesiastical Commission and the Charity Commission. Of course, the constitution is very different of those two bodies. The Ecclesiastical Commission is open, in theory at all events, to very much the same criticism that has been passed on some of these existing Lighthouse Authorities, of having a large number of eminent and busy people who presumably cannot put in very many attendances.

6132. (*Mr. Ennis.*) Following up what Colonel Herbert has asked you, I should like, if you are giving a reply to the questions which he has put with regard to substituting a body of Commissioners *plus* the Treasury for the present control of the Board of Trade, your opinion as to whether such a proceeding would or would not increase the cost of the administration?—Yes, most certainly.

6133. I would wish that aspect of the question to engage your attention?—And that would depend to some extent as to whether it was put forward as part of a scheme which should include the transference of all the light dues—I mean the abolition of the light dues or not.

6134. Quite so; of course, as you have said, the question of the light dues does not come within the purview of the Commission, but still I gather from your remarks also that you are quite in agreement with our experience, which is that we are brought up against the dead wall of that financial arrangement at every moment in the course of our inquiry?—I have no doubt.

6135. It governs nearly everything with which we have to deal, and so far as I understand your suggestion, it is that the three existing Lighthouse Boards should

* See Memorandum at the end of the evidence.

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continue to exist with the constitution remodelled?—Subject to this, that I said that was only on the assumption that your finding on the point of fact is that they do their work well. Of course, if you find that they do their work badly, you will make much more stringent recommendations.

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6136. But, assuming that we hold that their administration has been tolerably efficient, your view would be that the existing Boards should remain with the constitution altered to bring them up more in line with modern requirements, and furthermore that the Irish and Scottish Boards should be strengthened by the addition of a nautical element?—Yes.

6137. And you are further, I understand, not averse to a suggestion that the Irish and Scotch Boards should be so strengthened with a nautical element nominated by the Board of Trade?—I suggest that merely as one way of getting over the difficulty.

Trinity House control over Scotch and Irish Boards: Value of, to Board of Trade.

6138. If that were so, you would see no objection to a withdrawal of the control exercised at present by the Trinity House over the Irish and Scotch Boards, subject always to the Board of Trade being at liberty to consult the Trinity House on any proposals submitted to them?—I think if you recommend that the control of the Trinity House over the other Boards ought to come to an end, we certainly should wish to be at liberty to consult the Trinity House. I do not think I could go so far on behalf of the Board of Trade as to say that we see no objection to getting rid of the Trinity House control. I do not know whether I gave that impression. So far as we know it has worked well and been a useful body; and I say, if you get rid of it, if there are considerations which have been brought before you which tend to make you think that it ought to be got rid of, then we could supply its place to some extent the other way; but I think the Board of Trade view could hardly be said to be that we think it ought to be swept away.

6139. No, I did not take it that you advocated that it should be swept away, but that you would not consider that it was a proposal which was open to serious objection, especially if the Board of Trade's powers were reinforced with the power you suggest, of insisting upon any one of the Lighting Authorities carrying out the necessary work, that power to be exercised only on rare occasions, and with adequate safeguards in the directions you have indicated, of holding inquiries, and giving an opportunity to local authorities and those interested to appear and be heard on the subject?—Yes.

6140. And though you hold that that power is open to some objection in the nature possibly of political pressure, still you consider that, looking at the matter from both sides of the question, that power would carry with it the balance of advantage?—Yes, I think on the whole that it would. I do not think we could say that we think it would be a balance of advantage to get rid of the Trinity House control. I am speaking solely from our experience; we value their advice on these things.

6141. Then I also understand that your view is that, whilst shipowners should be placed upon the General Authorities, though shipowners do not seem to have any special desire to be placed on those Authorities themselves, still you are of opinion that the Advisory Committee ought to continue in existence?—I think that the continuance of the Advisory Committee should be judged on its merits, quite apart from any proposal of that kind. It would not be a substitute in any way.

Advisory Committee: Value of,

6142. But are you of opinion that the Advisory Committee, since it was called into existence by the Board of Trade, has or has not tended towards a reduction of expenditure on the service of lighthouses, buoys and beacons, of the United Kingdom? I mean, the returns furnished by the Board of Trade to this Commission as to the works objected to by the Advisory Committee and the works recommended by the Advisory Committee are in very sharp contrast, the works recommended by the Advisory Committee being very few in number, and one of them—the only one which would involve any serious expenditure—having been afterwards objected to by the Advisory Committee, the cost being estimated at £25,000. That is the light at Rathlin, an improvement in the light at Rathlin?—My personal experience does not go back to the early days of the Advisory Committee. Mr. Pelham could tell you much more about that than I could, but from what I hear I think that such benefit as we derive from their advice has been more in the late years than in the earlier years. At the only annual meeting at which I have been actually present I think there was an exceedingly useful and valuable discussion, and I think we derived benefit from that.

6143. You are under the impression probably that the Advisory Committee, notwithstanding their desires in the direction of economy, are not so rabidly anxious to cut expenditure as they may have been in the first instance, and furthermore that the Board of Trade in considering the proposals of the Advisory Committee, or the recommendations rather, can weigh for themselves the amount of desire towards economy that the Advisory Committee may entertain?—I think so; we by no means are bound by any advice that they give us. In two or three cases this year we have sanctioned things that they were against, but they have their say.

6144. With regard to the constitution, or the reconstitution rather, of the existing Boards, I did not quite understand your reply to our Chairman with regard to the superannuations of Trinity House, as to the possibility of superannuating the Elder Brethren of Trinity House without imposing an additional cost on the service. The question I should like to put is, do you propose to fill the vacancy created by the retirement at an age limit of members of the Trinity House during the lifetime of the recipient of the superannuation?—No, I have not considered the precise way in which it would be done, but I should have thought it would not be necessary to fill the vacancies, at all events until the number of acting people got down to a certain limit. I think there are thirteen at present, and I should think in the event of two or three of those being superannuated, they could probably get on with the ten. That was what was in my mind. They do at present, of course, manage with the smaller number, because the old men do not, I suppose, take their share of the work.

Superannuation of Elder Brethren

6145. But it would be conceivable theoretically that it might happen, through long life of some of the superannuated members of the Trinity House, that the Board might be depleted to an extent in number that would be undesirable, and would you therefore approve of a suggestion that where a member of the Trinity House would be superannuated that a successor should be appointed drawing a much smaller salary than the normal salary during the lifetime of the superannuated member?—The division of the £7,000 which is allowed for the salaries is made at present entirely at the discretion of the Trinity House. We have nothing to say to it, and therefore I feel some delicacy about making a suggestion as to how it should be distributed.

6146. It arises out of our Chairman's question as to whether it is possible to effect this change as to superannuation without adding to the cost, and it seemed to me it might be possible to carry it out by rather stereotyping the remuneration of the members of the Trinity House, and providing that where a member is superannuated the total cost of the office would be the same, but that the new member appointed to fill the vacancy should only receive the difference between the superannuation and the full remuneration during the lifetime of the superannuated member?—I understand the proposal, but I would rather not give an opinion about it at the moment.

General Lighthouse Authorities: Representation of shipowners on,

6147. Then with regard to the General Authorities in Ireland and Scotland, in Ireland certainly there are no large shipowners' associations?—Yes.

6148. And therefore the nomination of shipowning members on the Irish Authority by the Board of Trade should be made in consultation with some body other than the shipowners' association, which is non-existent—that chambers of commerce, or some other bodies could be utilised for the purpose instead of shipowners' associations?—We should have to take the best means we could as to getting advice as to getting suitable members.

6149. You recognise that suitable shipowners' associations in Ireland would not be available for the purpose?—Yes, I know the difficulty.

6150. And I would also put this aspect of the question, this again is seriously touched upon by the financial question, but in theory all classes of the marine community are entitled to be considered in the provision of the lighting of the coasts, not alone the large oversea trade, but the coasting trade?—Yes.

6151. And so on the coast of Ireland, after you deal with a few leading lights, a few important lights like the Fastnet and the Tuskar, and make them as efficient as may be desirable in the interests of oversea trade, you have still to consider the question of efficient lighting in the interests of the coasting trade; and though they are a class that pay nothing towards the cost and the maintenance of the lights, still you would hold, I take it, that fishermen are entitled to be considered also?—Certainly.

6152. That the fishing industry is an important industry, and whatever eventually may be the arrangement with regard to the payment of light dues, that the fishing industry has a claim to be considered?—Certainly; we do not take the view at the Board of Trade that the only people for whose benefit lighthouses should be put up by the General Lighthouse Authorities are those who pay the dues. We cannot take that view.

6153. Quite so?—Although no doubt they have the first claim.

Representation of Harbour Authorities deprecated.

6154. In considering the question of a reconstituted Authority, in Ireland say, would you consider Harbour Authorities, which are largely composed of shipowners, that is owners of the coasting class of vessel, a desirable authority from which to draw a certain proportion of representation? That is to say, I do not suggest that each Harbour Board in Ireland should be entitled to representation, but that the Harbour Boards of a given area, as a group, should be entitled to representation, so that each section of the coast would have, as it were, some member of the central body who would be more qualified to express valuable opinions on the requirements of that particular stretch of coast than the people who would not be so fully acquainted with it?—I should be a little afraid of introducing sectional interests, I mean local interests, there, because the representatives might feel that they were there mainly to look after the interests of the section of the coast that sent them to the Board.

6155. But would not their local knowledge be valuable, and would not the majority of the Board effectively control any such desire on their part?—They might or might not, but I think it is the difficulty with all composite bodies, and the difficulty that you want always to avoid, that the members should come as delegates for particular districts or interests. In fact that is an argument that might conceivably be urged as to shipowners, that they would come to look after the interests of shipowners, though in that particular case, I think the balance of advantage is in favour of the addition.

6156. But the existing Lights Board in Ireland, the objection might be taken to it, though I do not take any exception to it on any such ground, it would be possible in theory to raise questions, that they represent only, say, the port of Dublin—one port only?—I think the Lord Mayor is *ex officio* a member.

6157. And four members of the Corporation also?—Yes.

6158. I mean that is the difficulty that will arise under almost any circumstances?—Yes.

6159. It must necessarily arise, but assuming that the selection was made judiciously, and made not for individual harbours, but for groups of harbours, representing a considerable section of coast line, you would see no objection to it?—I do not think, on the whole, that it seems to me a desirable line of advance to get people representing particular groups of harbours. It would be one way, of course, of doing it. The people again would live at a distance, and would travel up for the meetings. Of course, the expenses could be provided for travelling, but you could not get the continuous attendance.

6160. The continuous attendance does not seem to be as a matter of fact available at present?—With a good many of the members, no. But then if these Harbour Authorities' representatives were among the non-efficient members who did not turn up, that would not attain the object that you have in view.

6161. That is quite so. Then also the fishery harbours of Ireland are controlled by, at least the fishery harbours are vested in the county councils?—Yes, I am not acquainted with that.

6162. Fishery harbours are vested in county councils, and they are, of course, an important interest from this point of view also. Our Chairman asked you some questions with regard to the attitude of the Commissioners of Irish Lights with regard to the Trinity House, and I thought also the Advisory Committee?—Trinity House, certainly.

6163. But I think—I am stating my recollection of the evidence given by the representatives of the Irish Lights—that they would practically oppose any change of any kind or description?—Yes.

6164. Now, Sir Thomas Blomefield I think referred me with regard to two or three questions to Mr. Pelham, and perhaps I might suggest them to you. In the first instance, you have said that you at present act as the Treasury with regard to the Lights Boards?—Yes.

Lighting of Port of London:

6165. Well, have you considered the result of the change of the law in 1898, when the light dues were collected on the tonnage of the vessels instead of passing light? As to the position of the port of London are you aware that that change, made a few years since, has practically resulted in giving to the port of London an advantage over the rest of the United Kingdom to the extent of £40,000 or £50,000 a year?—I know that the lighting of the port of London is carried out at the expense of the General Lighthouse Fund.

6166. Since that year?—Well, it always was, only before that the revenue of the Fund was derived from dues in respect of lights passed, and I am told that the revenue from the dues on the local lights in the Thames was in excess of the expenditure out of the Fund in respect of the Thames.

6167. But still the result of the change of the law in that respect has been that, if you take, say, the port of Liverpool, at present the Liverpool Harbour Authorities are obliged to maintain their local lights at their own expense?—Yes.

6168. And the shipowners at the port of Liverpool and other ports are obliged to bear not only their own proportion of the cost of local lights, but they also contribute to the General Lighthouse Fund, whereas the shipowners in the port of London have to maintain no local lights?—Oh, the change did produce some anomalies of that kind; that is not the only one.

6169. But it is one of rather a grave character, inasmuch as it involves, so far as witnesses have told us here, £40,000 to £50,000 a year?—Yes, it is so. May I say, you know that there have been proposals made in connection with the Port of London Bill for transferring the powers of Trinity House to a Port Authority. These proposals were in the Commission report and were dropped afterwards, not included in the Bills that have been introduced.

6170. There was another question about the Fastnet, but I think we have had information upon that point since, so I will not trouble you or Mr. Pelham with it; but there was a third question. Mr. Pelham has referred indirectly to that to-day; it is the question of initiative by the Board of Trade in any new works, and it lies at the root to a certain extent of your suggestion that this power should be given to the Board of Trade under exceptional circumstances?—Yes.

Mizen Head: Dispute as to light and fog-signal for,

6171. Now a case that seems to illustrate that somewhat is the case of Mizen Head in Ireland, and in that case of Mizen Head, so far as I have been able to gather from the various witnesses, the position seems to be that the Irish Lights Commissioners objected to the erection of a fog-signal on Mizen Head, but that eventually, as a request, it was put to us, I think, by the Board of Trade, and I suppose you would refer to that, as at the desire of the Board of Trade they included it in their application; but the Irish Lights Commissioners held then, and appear to hold still, that a fog-signal ought to be accompanied by a lighthouse, and that would seem to be one of the things in which the view of the Board of Trade and the view of the General Authorities, and also, so far as I remember, of the Trinity House, seemed to be at variance?—(*Mr. Pelham.*) Yes, that is so.

6172. But the Board of Trade considered that in the interests of navigation it was necessary that this fog-signal should be erected, and at their request, though not given by statutory power, the work was taken up?—It was more at the request of the Advisory Committee.

6173. But of course, so far as the General Authorities are concerned, the Advisory Committee is the Board of Trade?—Yes.

6174. I mean, the Advisory Committee advises the Board of Trade, and therefore, they not having any statutory authority, any request of theirs must come to

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the General Authorities through the Board of Trade?—Yes.

6175. Questions 3014 and 3015 read as follows: "3014. Well, with regard to the fog-signal station at Mizen Head, that you referred to in your evidence, it is true that the Irish Lights Commissioners for many years refused point-blank to establish a fog-signal station at Mizen Head?—(A.) The Irish Lights Commissioners always maintained that they thought it was a mistake to put a siren fog-signal at Mizen Head, and they still hold that opinion. 3015. They still hold that opinion, but you have it in the estimates for this year?—(A.) Yes, because we have been instructed by the Board of Trade, despite our opinion, to put it in. I may say it was in last year's estimates, and it is sanctioned, and the work is in hand—we have commenced it. The Elder Brethren originally backed up the Irish Lights Commissioners—I am speaking from memory—in saying that a fog-signal at Mizen Head would be a mistake. But the shipowners pressed for it so much that first of all Trinity House gave way, and subsequently the Irish Lights Commissioners yielded to the statutory instruction of the Board of Trade, and are placing it there. The Irish Lights Commissioners, when they did agree to this, recommended that, if there was to be a signal there, there should be a powerful light along with it; but the Board of Trade decided that there should not be a light—that there should be a fog-signal only"?—That of course is wrong; there was no statutory instruction.

6176. (*Chairman.*) No statutory instruction would be possible. The Board of Trade have no such right, have they?—No. (*Mr. Llewellyn Smith.*) No.

6177. (*Mr. Ennis.*) There was one question I do not know whether I should put to you or not. Possibly it may not be a proper question to address to you, but rather to the Engineer, but you may perhaps be aware whether you have ever obtained from foreign countries lists of their lighthouses, and the character of their lights, for the purposes of comparison. I was anxious to ascertain if possible the number of flashlights on the French coast?—I suppose we could supply that. We either have that or we could get it, and will communicate with your Secretary.

Number of French flashlights.

6178. I had asked Captain Bigham in the morning. My reason for putting the question is that possibly you might have the information?—From my own knowledge I have not; we have it probably in the Department; I will look that up and see.*

Form of Accounts and Estimates of General Lighthouse Authorities:

6179. (*Admiral Henderson.*) Do you think that the financial control, as at present existing, could be simplified? We have seen specimens of the estimates and accounts, in neither are they on the same forms, and it has been very difficult to get any accurate comparison at all?—Well, I was making some inquiries about that recently, because certainly, so far as any powers of ours could be exercised to promote uniformity of accounts, I think they ought to be. I am having that looked into. Of course, as you will readily understand, the difference of basis which makes comparisons so difficult is not only or chiefly due to a difference in the form of account, but a difference in the real circumstances. For example, services which are done, say, by the Trinity House by their own steamers—I am talking about the relieving work, for example—and which will therefore be charged to their steamers, might by other Authorities be done by hired boats, and would appear under a different heading.

6180. I think they appear under the same heading; I mean to say they appear under the heading of the cost of the service for which it is rendered?—I am speaking from memory; no doubt you are right; you have the figures more in your mind. Perhaps I took a bad example; one illustration will be as good as another. So far as any kind of uniformity can be promoted by altering the forms of account which we prescribe (we prescribe the returns—we have power to modify), without, of course, sacrificing more important things, we certainly should endeavour to promote it.

6181. It appears to me that the accounts and estimates should be put in exactly in the same forms, and discrepancies and differences of system would appear then on the face of it?—Yes, I think we do prescribe the same form.†

6182. I do not think they are quite; I cannot say, of course, that I had time to go into them very, very closely, but they are not really on the same forms?—There is no absolute uniformity of system as to what items shall be put under the different headings, but I think the headings are the same.

6183. And there are many things, it appears to me, that might be amended in that sort of way?—Yes, perhaps.

Board of Trade control over Lighthouse Authorities: Amount of work involved by,

6184. In discussing the point about the Advisory Committee and the responsibility of the various Boards and the Board of Trade, is there not a good deal more correspondence and work involved than there is really any occasion for, considering the small amount of the details concerned?—Well, if any suggestion could be made for lessening it, I think it would be very valuable. I am not prepared to say that I think it is excessive, but I should be very glad if we could see our way to simplify it.

6185. The Advisory Committee alone must cause a good deal of increase of work of that sort?—No doubt it does; I am not able to say from the purely Departmental point of view how far that is appreciable. That would not be with your Department, Mr. Pelham, so much as Sir Thomas Blomefield's?—(*Mr. Pelham.*) Not quite so much, but it does involve a good deal both in Harbour and Financial Departments.

6186. It has not been possible to arrive at any understanding what the work of the Lighthouse Department of the Board of Trade in its detail involves, what its cost to the Board of Trade is, and what is the actual work involved; I mean to say, what is the actual work involved by the Board of Trade control?—(*Mr. Llewellyn Smith.*) I imagine an estimate could be made for that.

6187. It seems to me—two or three times I have asked the question—it is part of somebody's work?—Oh, exactly; there would be apportionments of a difficult kind to make; but if the Commission attach importance to getting anything of that kind, I presume a very rough estimate could be framed. For example, supposing Colonel Herbert's suggestion of transferring all the work to another Board were carried out, how much should we save a year, how much would be set free? I could not answer it off-hand, and any figures would have to be very rough, but it is not impossible to apportion the time in some way, provided it be understood that it is mere approximation.

6188. (*Sir Frank Adam.*) Would not the amount of saving greatly depend on the number of Commissioners and their remuneration?—I am speaking of the Board of Trade, simply of the time taken up by the Board of Trade.

6188a. But you referred to Colonel Herbert's question as to the saving that would be effected if the work were handed over to Commissioners?—I am only referring to how much of Mr. Pelham's time, and how much of his principal clerk's time, and of Captain Frederick's time, and so on, would be taken up. That is what you mean?

6189. (*Admiral Henderson.*) What do you consider would be the actual cost and the time of the work you do for the Lighthouse Authorities?—The cost would be very difficult. How much of the time of the President should be assigned? That would be very difficult.

6190. You mentioned in the beginning of your evidence that the Board of Trade is congested, and you would be very glad to get rid of it?—The President and the Permanent Secretary would be saved a certain amount of work, but you would not dock our salaries, I presume, so that no saving would be effected in that way.

6191. If it were taken away from you, you would be released for other work which is probably more important?—I only put that as a case, whether we are to put anything into the estimate of cost for the amount of time of the higher officials, and the Parliamentary people, which is undoubtedly taken up by the work,

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* *Note*—The Board of Trade subsequently furnished a list of French flashlights as follows, viz.:—Electric lights, 13; oil or gas lights, 79.

† *Note.*—With reference to the question of uniformity of accounts, Mr. Llewellyn Smith subsequently wrote stating, "The forms of accounts prescribed for the different Lighthouse Authorities are identical, but owing to the difference in the system of administration adopted by the three Boards, there are a few variations in the allocations of the charges under the different headings. As indicated in the evidence, the Board of Trade intend that the system of accounts should be as uniform as is possible without sacrificing matters of more importance."

and the equivalent of which would have to be provided in the new Board. You would have to have Commissioners who would do that work, and have to be paid for it, but you would not release any funds by so doing.

6192. No. You admit that the object is to get responsibility on the several Lighthouse Authorities themselves, and that they should not place the responsibility on the Board of Trade for what is their own particular duty?—I think that is very important.

6193. Well, do you not think, so far as we have pursued the evidence, that there seems to be a tendency in that sort of way, that the tendency is to throw every responsibility on the Board of Trade, because it all comes home in the extreme minuteness of the financial control?—The financial control, of course, is with the Board of Trade; that is where it is, and where I presume it should be, and that has to be detailed. I am not prepared to say that I think it is excessively detailed, and I think, from what I have seen by glancing through the evidence, that you have not had any complaints of it.

6194. In regard to this—it really refers to the previous question, I think—I notice in some of the accounts that the name of every lighthouse-keeper was sent up. Well, that is a point where I think a cash account would have done instead of the enumeration, and a cash account in some cases supported by vouchers would have been sufficient?—Well, if there is any possibility of saving——

6195. That, of course, is entirely a matter for technical examination; it is impossible for me to be able to indicate directly all the points; but I think it is one that wants looking into.

6196. (*Chairman.*) Do not the wages of the lighthouse keepers rise automatically with length of service?

6197. (*Admiral Henderson.*) According to their promotion, according to their class I think they do; when the estimates are sent forward so many are voted for; the Authorities cannot add to that list, and therefore the returns might perfectly well be in the gross. They must have so many first class and so many second class, which is approved as far as the estimates are concerned. The several Boards should not be able perhaps to add to the list, unless it is on the opening of a new lighthouse, and then they get statutory authority. But it appears to me that there was a great deal of clerical work which might be saved?—Well, I will have that particular illustration that you have mentioned looked into, and I could say quite genuinely that I should personally welcome very much any suggestions that could be made, informally or formally, which would have the effect of lessening the clerical work without diminishing the real effectiveness of the control. I think sometimes these things do tend to become too minute.*

6198. The tendency of the Lighthouse Authorities and I may even say for all Government Departments, is that, having once got into a system, they stick to it through thick and thin, and are very loth to improve it. That is my experience?—That is so; I do not deny it. That is a weak point of Government Departments, no doubt, and Local Authorities.

6199. I do not know whether I did put it exactly in speaking just now, but has not the tendency of the Board of Trade been to increase the control?—Mr. Pelham, perhaps, would be able to answer that question more directly than you?—(*Mr. Pelham.*) I do not think so.

6200. You think it has been the same throughout for a period of ten or a dozen years?—Since I have been there, the last ten years, it has been very much the same. We have simplified matters a little, and prevented some things going from one department of the Board of Trade to another. That is the only change we have made. (*Mr. Llewellyn Smith.*) If we could get any suggestions, they would be very valuable to us. (*Mr. Pelham.*) All the accounts have to go before the Comptroller and Auditor; they have to come to us, and go on to him; he probably has to see every name.

Nature of.

6201. No the Board of Trade really, as a matter of fact, do control the administration. You deny that you control the administration, but as a matter of fact I think the tendency of these Boards is more and more to put administrative control into your hands, so far as is shown by the evidence. I mean to say that the financial control practically puts it there?—(*Mr. Llewellyn Smith.*) Not more than the financial control of the Treasury over the Board of Trade puts our administration in their hands; it does, of course, affect administration. If we want to do things involving the spending of money, we have to make out a case.

6202. Will you not get more efficiency by putting responsibility on a Local Authority as much as you can?—Certainly.

6203. Because their tendency is always to lean on the higher authority?—Yes.

Underwriters: Representation of, on Lighthouse Authority not advocated.

6204. And then the question I wanted to come to is the question, would you propose to add—you have suggested shipowners being added to these Boards or to any Central Board that may be established—would you propose to add underwriters?—No, I do not think so. They are on the Advisory Committee, and I do not know that their particular experience would be very helpful in the current work of administration. At all events, I had not thought of it.

6205. On the one hand, the shipowners do not want to be too extravagant, and the underwriters naturally want to secure their property?—That is so.

6206. They are personally interested in that sense?—Yes. May I say on that that I do not personally believe that we shall get administrative efficiency on the Lighthouse Boards by having a balance of competitive interests. My hope of the shipowners would be that they would be there to help forward the work, and not merely to represent their class.

Constitution of General Lighthouse Authorities.

6207. Now, is it not the case that the necessity for the nautical element on these Boards has been rather exaggerated? The duties of the Boards are only to a certain portion of their extent nautical. Very great portions of their work are administrative, and except so far as some portion of the executive work is nautical—and as to the position of new works nautical men probably would be the first who would be able to say what was necessary—has not on the whole rather too much prominence been given to the necessity for nautical men?—I think it is quite likely that it has been; some people always attach an undue importance to administration by experts as opposed to administration by good people who could suck the brains of experts.

6208. You have on the one hand the Trinity House, entirely composed of nautical experts, and the Scotch Board which has not one. I want to know—there is a complaint that there is no nautical representation on the Scotch Board—whether there is not over-nautical representation at Trinity House?—But, on the other hand, you must remember that the defect of nautical authority, if there is any on the Scotch Board, is partly supplemented by the fact that there is a nautical control of the Trinity House over them in new works.

Remuneration of Elder Brethren.

6209. And also their Engineer; they have a good deal of nautical knowledge there. I wanted to ask whether the £7,000—we did ask Sir George Vyvyan a question about it—that is paid to the Elder Brethren is inalienable, or is it alienable in any reforms which take place?—I am afraid that is a legal question of some difficulty. I should not care to give a firm opinion about it. Our idea has been that it was a commutation of certain sources of income, the Elder Turns, that were taken away from the Trinity House.

6210. For performing certain duties. Well, but were they for performing these duties?—(*Mr. Pelham.*) I think so, but there are a great many other duties besides. (*Mr. Llewellyn Smith.*) Other duties besides. I know that is the Trinity House view, and I should not care to express a legal view myself. It certainly should not be assumed that you could get the money.

6211. No, it could not be assumed; but the question in any reconstitution is, is that sum alienable or inalienable?—Counsel's opinion might have to be taken upon that.

6212. You have stated just now, that the principal cause of the discontent among the shipowners was the incidence of the light dues; but also is not one of the causes of their discontent, as they advance it, that

*Note.—Mr. Llewellyn Smith subsequently wrote that "With reference to the savings possible for clerical labour in regard to the particulars (*e.g.*, the names of the light-keepers) set out in the existing form of accounts, it is necessary to have this detailed information for the purpose of auditing the accounts."

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they know nothing about the administration?—I think they complain of that.

6213. And that therefore if they were represented, it would at least no longer give them reason for feeling that they were not able to overhaul the administration?—It would. Of course, they do not ask for representation at present.

Advisory Committee: Value of,

6214. (*Sir Frank Adam.*) I only wanted to ask one question. Supposing that the three Boards were reconstituted, each one having representatives of the shipowners and men of nautical experience, and supposing the representatives of the shipowners on each of those Boards formed together a central committee, could that in your opinion take the place of the Advisory Committee?—No, I think hardly. In the first place the strength of the Advisory Committee from our point of view is that it is appointed, constituted really, by the shipowners and underwriters themselves. We have nothing to say to its constitution I think in any way, and it conveys to the Board of Trade the views of shipoweners as a whole, and it also has underwriters and merchants on it.

6215. It is not confined to one class?—It is their organ, framed to suit themselves, to bring to bear upon these proposals the views of the shipowners and underwriters as a whole. I cannot conceive that any system of simply bringing together the shipowners' representatives on the three Boards could quite take the place of that, though I do think it would be very desirable, if it were found practicable, that these members, or some of them, should be on the Advisory Committee.

6216. I understand from what you have said that at any rate whatever little friction or differences may have arisen in the initial stages of the Advisory Committee, latterly you have found them very useful in consultation?—I can only speak of them in the last year, and I think they are useful in consultation.

6217. And arising out of what Admiral Henderson has said, of course, representatives of shipowners, although they do not ask for representation directly, yet complain that the present administrations are extravagant and inefficient; but they cannot give specific instances in evidence because the accounts are not open to them in the form to give them the necessary details?—Yes.

6218. Is there anything important in that complaint, may I ask, in your opinion?—The form of complaint that I remember most was the lateness at which they got the returns, not the amount of detail; that they got them so late that they were no use to them. (*Mr. Pelham.*) They also complained that they had not been able to go into establishment expenses and pensions, and things of that sort; that we thought quite outside the original reference to them, and would be mischievous. If they were to critise them no object would be gained, as they have no special knowledge on the subject.

Constitution of Trinity House.

6219. (*Mr. Ennis.*) With regard to the Trinity House constitution, the Trinity House at present, in addition to their duties in connection with the general lighthouse administration, perform various other duties in connection with pilotage and things of that kind?—(*Mr. Llewellyn Smith.*) Yes.

6220. Is it your suggestion in the reconstitution that the same body—the reconstituted body—should continue to perform those duties, which are alien to lighthouse administration, as well as the duties which would be thrown upon them in regard to lighthouse work?—No; I do not contemplate any transference, unless you mean in connection with what you may call Colonel Herbert's plan. What I rather suggested was the addition of other elements to the Trinity House.

6221. Quite so; but then you still contemplated that the Board of Trinity House which performs other duties, and which, as far as I am aware, receives other emoluments outside the Lighthouse Fund, should not have those duties taken from them; that they should continue to carry out the same work as is at present carried out by the Trinity House?—Yes, that is so. I did not contemplate otherwise. I have not really gone into the question.

With reference to Questions 6103-6133, Mr. Llewellyn Smith subsequently sent in the following memorandum:—

NOTE on a proposal by COLONEL HERBERT for the formation of a Separate Body to Control the General and Local Lighthouse Authorities.

Central Lighthouse Authority to replace Board of Trade: Views as to,

The proposal, as I understand it, is to constitute a Board of Commissioners to take over the work of supervision and financial control of the General Lighthouse Authorities from the Board of Trade, and the work of supervision of local lights from the General Lighthouse Authorities. The new Board is to have no duties of actual management, the aim being to separate the work of management and control.

The proposal is likely to be a costly one. If a body of Commissioners were set up they would no doubt have to be well paid, while if their duties were confined to supervision and general control there would not be sufficient work, or anything like sufficient work, to keep them fully and continuously occupied throughout the year. It would, moreover, be necessary that the Commissioners should have an experienced nautical adviser to do the work now done as a part of his duties by the professional officer of the Harbour Department of the Board of Trade, and a special staff, some with considerable salaries, would also be required.

At present the work of supervision is distributed among members of the staff of the Harbour and Finance Departments of the Board of Trade as part of their ordinary duties, and the cost of such supervision is borne out of public funds. The transfer of the duties would not enable the Board of Trade to dispense with the services of any of their higher officials, and probably would not save the salaries of more than one or two clerks, though it would of course give some relief to the higher staff.

The new body would also probably have to have a special vessel for the purpose of inspecting the local lights, and this vessel would not be required during a considerable part of the year.

Even if hired vessels were found sufficient, the cost would be much greater than at present, when the inspection of local lights is usually carried out by the General Lighthouse Authorities at the same time as the inspection of their own lights. This seems the most natural and economical method of inspecting local lights, and any other system is bound to involve duplicate steamboat journeys.

The cost of the new establishment would therefore be very much greater than any saving to the Board of Trade and the General Lighthouse Authorities, and the question arises on whom is the additional expense to fall. Any proposal to saddle the General Lighthouse Fund with it would be certainly resisted by the payers of light dues. If the cost is to be provided out of public money, it will be a question whether the practical benefits which are expected from the change are worth the cost.

The new Board would, of course, require to be represented in Parliament, and such representation would probably be weaker than at present, for the representative of the Commissioners could hardly be expected to have the standing of a Cabinet Minister such as the President of the Board of Trade.

The Board of Trade have no desire whatever to retain the control of the General Lighthouse Authorities if it be thought that any other body could discharge the duty more effectively. But the task seems essentially of a kind which can be better and more economically carried out as part of the ordinary work of a department or authority having other duties of a somewhat kindred nature than as the sole duty of a special Board which is likely to be relatively both weak and costly.

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APPENDIX A.

RETURNS PREPARED BY THE BOARD OF TRADE.

APPENDIX A.

I.

Mr. Pelham.

NEW LIGHTHOUSE WORKS

OBJECTED TO BY THE

ADVISORY COMMITTEE.

1900—1906.

APPENDIX A.—I.

Mr. Pelham.

NEW LIGHTHOUSE WORKS objected to by the ADVISORY COMMITTEE.

YEAR.	WORK.	OBJECTIONS.	RESULT.
1900. Trinity House -	New Coal Hulk at Blackwall —£3,500.	Not necessary. Coal can be put on board by contractors direct.	T.H. withdrew this proposal, but asked for sanction to the expenditure of £300 on repairs to the old Hulk. This was sanctioned as maintenance.
	Lightships. Cost of construction.	Committee are of opinion that the cost is much too great. T.H. should take outside advice with a view to adopting a less expensive type.	The Board were satisfied that the build of a lightship cannot be compared with that of ordinary vessels, having regard to the weather to which the former are exposed and the time spent on the station.
Commissioners of Irish Lights.	Skelligs and Inishtearaght. Dwellings for keepers.	£1,000 per keeper is too much to spend.	Sanctioned, after consulting the Lighthouse Authorities.
	New Steamer to replace "Princess Alexandra"—£32,000.	Committee think that the old vessel should be surveyed and repaired, and the question of a new vessel postponed.	Postponed for survey. (See 1901.)
1901. Trinity House -	Skerries. Improvement of light—£5,700.	No complaints had been received. Light is considered satisfactory, consequently there is no necessity for spending this money.	Deferred for the present year. (See 1902.)
	Dungeness. New high and low light with new fog signal—£22,700.	Should be postponed until the works at Beachy Head are completed, as there is no urgency.	Sanctioned.
	Lizard. Conversion of eastern light to flashing and abolition of western light—£3,000.	Money might be saved, as the Committee are advised that the change proposed would result in danger to vessels.	Sanctioned.
	St. Anthony. Intensifying upper and subsidiary lights and extending eastern limit of visibility —£1,000.	Do not consider this expenditure necessary.	Postponed.
	Longstone. New fog-signal —£2,700.	Should be postponed until contemplated experiments with fog horns have been carried out.	Deferred till after experiments.
Trinity House -	Holyhead Store. New crane and tramway—£800.	Committee not satisfied as to the necessity for this work.	Sanctioned.
	Portland. New lighthouse —£8,500.	No necessity for this expenditure at the present time.	Deferred. (See 1902.
	Whitby Lighthouse. Fog siren—£6,500.	Should wait for experiments with fog horns.	Deferred till after experiments.
Commissioners of Northern Lighthouses.	Stromness. Pier and store and gasworks—£7,759.	A heavy expenditure for such a remote locality, of which the Committee do not approve, as they are not acquainted with any facts which would justify it.	Sanctioned.

New Lighthouse Works objected to by the Advisory Committee—*continued.*

Year.	Work.	Objections.	Result.
1901. Commissioners of Northern Lighthouses—*contd.*	Hyskeir. New lighthouse—£1,300.	Committee think that a light on Neist Point would be more useful and would cost less.	Sanctioned. Neist Point would only be useful for navigation of the Little Minch.
	Rhinns of Islay. Fog signal—£5,500.	Not pressing; might be postponed.	Sanctioned.
Commissioners of Irish Lights.	Slyne Head. Shore dwellings – £4,000.	Consider dwellings too expensive and ask Board of Trade support in this view.	Sanctioned.
	New vessel to replace steamship "Princess Alexandra"—£26,500.	Committee are of opinion that the old vessel will serve for a few years longer if properly repaired.	Sanctioned. The Board decided that this case should not be regarded as one coming within the scope of the Committee's duties.
1902. Trinity House -	Portland. New lighthouse—£8,500.	Should not be sanctioned, as it is not required by vessels going up and down Channel.	Sanctioned.
	Skerries. Improvement of light—£5,700.	Should not be sanctioned. Present light quite satisfactory.	Postponed for further inquiry. (See 1903.)
Commissioners of Northern Lighthouses.	Shetland East Coast. Four beacon lights—£2,200.	Only of benefit to local traffic.	Sanctioned.
	Cape Wrath. Fog siren—£5,500.	Urge adoption of explosive signal. More economical and efficient.	Siren sanctioned.
	Inverness Firth. Four gas-buoys and one beacon—£2,000.	Should be postponed.	Postponed. (See 1903.)
1903. Trinity House -	Skerries. Improvement of light—£5,700.	Not necessary. No complaints have been received.	Sanctioned.
	Portland. Dwellings—£2,500.	They oppose this as they did the improvement of the light brought forward in 1901. The light is not an important one.	Sanctioned.
Commissioners of Northern Lighthouses.	Inverness Firth. Four gas-buoys and one beacon—£2,000.	Not urgent.	Sanctioned.
	Loch Linnhe. Two gas-buoys and one beacon—£1,330.	No pressing need for these.	Sanctioned.
	Isles of the Sea. Beacon light—£530.	Perhaps no harm in postponing.	Sanctioned.
	Butt of Lewis. Improvement of light—£2,000.	No complaint has been made. Expenditure can at least be very well postponed.	Sanctioned.
	Strathie Point. Lighthouse—£8,850.	A lighthouse may be wanted in this locality, but expenditure is heavy. Ask whether Whiten Head would not be a better site.	Postponed. (See 1904.)
	Sumburgh Head. Fog signal—£5,500.	No need for this expenditure.	Postponed. (See 1904.)
Commissioners of Irish Lights.	Burford Bank, Dublin. Gas-buoys—£2,600.	No pressing need for this. Might be postponed.	Sanctioned.
1904. Trinity House -	St. Govans Shoal. Light-vessel—£12,000.	Committee consider this quite unnecessary.	Decided at the Conference not to sanction. Postponed. (See 1906.)
Commissioners of Northern Lighthouses.	Cruden, Aberdeenshire. Lighthouse and fog-signal—£9,350.	Not necessary. This is being proposed before the effect of Buchan Ness fog-signal can be known.	Refused.

New Lighthouse Works objected to by the Advisory Committee—*continued.*

Year.	Work.	Objections.	Result.
1904. Commissioners of Northern Lighthouses—*contd.*	Oban. Pier and stores—£12,250.	This work should not be sanctioned. C.N.L. ought to try and make more economical arrangements. The Committee communicated with the local railway company and the Oban Town Council as to the terms they were willing to give to the C.N.L. with regard to the use of a pier.	Sanctioned. The President wrote to the Chairman of the Committee objecting to the action taken by them. It was decided that the Committee had no authority to interfere and no special knowledge which would assist.
	Orkneys. Lighting four buoys and one beacon—£2,965.	Committee do not think that any pressing necessity is made out for this expenditure. May safely be postponed.	Sanctioned.
	Strathie Point. Lighthouse—£8,850.	Should not be sanctioned.	Refused. (See 1905.)
	Sumburgh Head Fog-signal—£5,500.	No accident is complained of. Expenditure on this is unnecessary.	Sanctioned.
1905. Trinity House -	Strumble Head. Lighthouse and fog-signal—£12,000.	Committee think that this light would benefit the Great Western Railway Company only, and strongly object to expenditure.	Sanctioned. The B.T. obtained a promise from the G.W. Rly. Co. that they would contribute £2,000 to the first cost of the work. Evidence was obtained that the light would benefit a large coasting trade.
Commissioners of Northern Lighthouses.	Strathie Point. Lighthouse—£8,850.	No need for this work. Expenditure should not be entered upon at the present time.	Postponed.
	Nun Rock. Unmanned gas lightship with bell—£4,000.	Would not benefit British shipping. Traffic at this point consists of foreign vessels which do not call at British ports, and therefore do not pay light dues.	Postponed.
	Mull of Kintyre. Improvement of light—£2,900.	Not urgent, and may be postponed. If sanctioned, should perhaps remain a fixed light.	Sanctioned. Light to be flashing. An important improvement.
	Whitestone Bank. Gas bell buoy—£1,000.	Not sufficient evidence to show the necessity for the work. Should be postponed.	Sanctioned.
	Spare Gas Lightvessel—£4,000.	Should not be sanctioned.	Sanctioned as being absolutely necessary.
Commissioners of Irish Lights.	Rockabill and Beeves. Rockshore dwellings for keepers—£3,500 each station.	Committee are not satisfied about the cost. The President at the Conference stated that he did not regard this as a special part of the Committee's work.	Sanctioned. Inquiry was made into the cost of shore dwellings. It was found that the three L.H. Boards spent about the same amount.
1906. Trinity House -	Smalls. Improvement of light from occulting fixed to flashing with a great increase of power—£4,000.	No complaints of present light. In view of the large amount of the Estimates this work ought not to be undertaken.	Sanctioned. This improvement is part of a general scheme of Trinity House to improve old fashioned lights. Smalls is an important light to mariners.
	Submarine signalling—£1,000.	Should not be paid for out of light dues.	T.H. withdrew the proposal.

New Lighthouse Works objected to by the Advisory Committee—*continued.*

Year.	Work.	Objections.	Result.
1906. Commissioners of Northern Light-houses.	Bass Rock. Fog-signal—£4,810.	No urgent need for this. In any case the signal would be better on Fidra Head.	Sanctioned. Fidra Head considered but not approved.
	Neist Point. New Light-house—£11,650.	Should be held over.	Postponed.
Commissioners of Irish Lights.	Skelligs. Re-erection of lighthouse—£13,500.	Should be deferred in order that the matter may be thoroughly gone into.	Postponed.
	Rosslare. Lighting approach to harbour—£7,500.	Would benefit only the Great Western Railway steamboats. The Company should pay.	Not sanctioned.

APPENDIX A.

II.

Mr. Pelham.

NEW LIGHTHOUSE WORKS

RECOMMENDED BY THE

ADVISORY COMMITTEE.

1901—1906.

APPENDIX A.—II.

Mr. Pelham.

Works recommended by the Advisory Committee.

Year.	Work.	Result.
1901.		
Trinity House	Lighting of Monkstone Beacon, Bristol Channel.	Sanctioned.
	Lightship on the Manacles	Trinity House objected chiefly on the ground of cost. The Committee then proposed a lighted and sounding buoy. This was sanctioned.
	Bristol Channel. Nash point fog-signal	Sanctioned.
Commissioners of Northern Light Houses	Holy Island, Arran. Light and fog-signal on East side.	Sanctioned.
Commissioners of Irish Lights	Lucifer Shoal. Alteration of light	Suggestions conveyed to C.I.L. Sanctioned.
	Inishtrahull. Fog-signal—£5,500	Suggestions conveyed to C.I.L. Sanctioned.
	Rathlin. Improvement of light	In 1903 the C.I.L. submitted an estimate of £25,000 for a new light and fog-signal. Advisory Committee considered this too large. The suggestion was therefore dropped.
	Mizen Head or Three Castles Head. Fog-signal.	Consideration might be postponed. (See 1903.)
1902.		
Commissioners of Irish Lights.	Tuns Bank Buoy. Automatic sounding gas lighted—£1,500.	Sanctioned.
1903.		
Commissioners of Irish Lights.	Mizen Head. Fog-signal	Postponed for further consideration. The C.I.L. did not think that Mizen Head was a suitable place. The Committee promised to wait in order that the effect of the new Fastnet Light might be considered. (See 1906.)
1906.		
Trinity House	Flatholm. Fog-signal—£6,700	Sanctioned.
Commissioners of Irish Lights.	Mizen Head. Fog-signal—£7,850	Sanctioned.
	St. John's Point. Improvement of light—£4,600.	Sanctioned.

APPENDIX A.

III.

Mr. Pelham.

STATEMENT

SHOWING THE AMOUNTS PROPOSED, SANCTIONED, AND EXPENDED

ON

NEW WORKS

BY THE

GENERAL LIGHTHOUSE AUTHORITIES

FROM

1880–81 to 1906–7.

APPENDIX A.—III.

Mr. Pelham.

STATEMENT Showing the Amounts Proposed, Sanctioned, and Expended on New Works by the General Lighthouse Authorities from 1880–81 to 1906–7.

PERIOD.	TRINITY HOUSE.			NORTHERN LIGHTS.			IRISH LIGHTS.			TOTAL.			PERIOD.
	Proposed.	Sanctioned.	Expended.	Proposed.	Sanctioned.	Expended.	Proposed.	Sanctioned.	Expended.	Proposed.	Sanctioned.	Expended.	
	£	£	£	£	£	£	£	£	£	£	£	£	
1880–81	47,817	47,817	28,048	12,719	12,719	7,571	15,273	15,273	2,584	75,809	75,809	38,203	1880–81
1881–82	49,343	49,343	22,731	3,100	3,100	1,976	29,284	18,190	8,791	81,727	70,633	33,498	1881–82
1882–83	30,050	30,050	13,985	5,034	5,034	5,925	31,659	21,449	883	66,743	56,533	21,793	1882–83
1883–84	62,180	62,180	26,838	15,951	15,951	16,354	36,689	31,688	8,503	114,820	109,819	51,695	1883–84
1884–85	107,570	72,970	39,862	27,850	27,850	25,671	43,032	42,362	10,207	178,452	143,182	75,740	1884–85
1885–86	119,950	59,150	49,296	42,223	25,557	19,149	44,358	41,201	16,515	206,531	125,908	84,960	1885–86
1886–87	76,300	42,600	34,858	53,380	32,985	18,077	40,719	33,599	23,809	170,399	109,184	76,744	1886–87
1887–88	94,500	53,291	17,667	34,650	11,606	4,166	26,157	20,908	16,986	155,307	85,805	38,819	1887–88
1888–89	35,325	35,325	30,436	16,000	9,500	6,756	13,644	13,029	10,425	64,969	57,854	47,617	1888–89
1889–90	48,090	48,090	34,790	17,810	7,810	11,184	5,901	5,901	4,587	71,801	61,801	50,561	1889–90
1890–91	47,969	36,059	30,677	28,063	15,920	16,268	9,136	9,136	4,109	85,168	61,115	51,054	1890–91
1891–92	26,290	23,665	19,444	20,798	20,798	22,471	7,841	7,841	11,516	54,929	52,304	53,431	1891–92
1892–93	21,300	16,750	10,728	49,671	44,049	43,422	48,432	48,432	32,184	119,403	109,231	86,329	1892–93
1893–94	60,850	19,974	15,745	24,265	20,254	21,807	64,806	31,618	20,417	149,921	71,846	57,969	1893–94
1894–95	42,700	21,700	14,278	23,633	22,833	16,580	27,766	10,456	7,657	94,099	54,989	38,515	1894–95
1895–96	48,350	43,305	26,385	18,798	17,798	17,562	27,528	10,318	2,462	94,676	71,421	46,409	1895–96
1896–97	35,232	32,270	21,586	49,303	34,303	30,466	35,888	35,888	4,698	120,423	102,461	56,750	1896–97
1897–98	58,077	60,177	42,058	29,385	34,965	35,509	34,527	46,927	14,578	121,989	142,069	92,145	1897–98
1898–99	74,513	55,313	28,144	28,189	30,347	33,663	58,107	47,476	37,027	160,809	133,136	98,834	1898–99
1899–1900	81,770	57,385	39,681	27,768	24,540	35,292	88,049	35,980	23,361	147,587	117,905	98,334	1899–1900
1900–1901	100,228	67,328	72,631	20,331	17,131	19,565	70,009	50,101	28,410	190,568	134,560	120,606	1900 1901
1901–02	89,825	53,897	28,822	12,275	12,275	13,043	56,493	40,278	30,067	138,593	106,450	71,932	1901–02
1902–3	41,575	57,224	41,667	22,136	20,136	30,213	58,135	31,735	18,033	121,846	109,095	89,913	1902–03
1903–4	47,550	47,550	43,144	24,359	23,059	27,292	68,890	50,000	36,188	140,799	120,609	106,624	1903–04
1904–5	41,226	29,226	27,775	27,005	23,705	19,568	41,730	43,430	40,365	109,961	96,361	87,708	1904–05
1905–6	25,421	20,563	16,074	23,592	19,892	22,412	27,680	14,680	11,970	76,693	55,135	50,456	1905–06
1906–7	31,113	27,613	Not yet known.	21,695	19,415	Not yet known.	22,350	19,430	Not yet known.	75,158	66,458	Not yet known.	1906–07

APPENDIX A.
IV.

Mr. Pelham.

INSTANCES OF UNSATISFACTORY METHODS

OF THE

IRISH LIGHTHOUSE COMMISSIONERS.

1904—1906.

APPENDIX A.—IV.

Mr. Pelham.

Instances of Unsatisfactory Methods of the Irish Lighthouse Commissioners, 1904–1906.

(1)—S.S. "IERNE."

This vessel was built specially for the work of constructing the Fastnet Lighthouse. When the work had been completed the Commissioners of Irish Lights asked for sanction to the retention of the vessel for the general work of the Lighthouse Service and to the sale of the S.S. "Moya." The "Moya" was built in 1893 and the "Ierne" in 1898. The Commissioners stated that the "Ierne" was superior to the other vessel in sea-going qualities and strength of build. This proposal was sanctioned by the Board on the 15th November, 1904.

There was no suggestion that the "Ierne" would require any alteration until in October, 1905, the Commissioners asked for sanction to the insertion of a sum of £1,000 in the Estimates for 1906-7 to meet the expense of extensive alterations.

It was proposed to extend the engine room and spare sleeping cabin deck-house, and to fit up an additional cabin and mess-room, to make alterations rendering the vessel less likely to take water over the forecastle, and to alter the position of the windlass engine.

In explanation of these proposals the Commissioners stated that they did not anticipate any alterations, but experience at sea in all weathers had shown that the "Ierne," which hitherto had been on fine weather work at the Fastnet, required these improvements to make her serviceable.

They added that had the "Moya" remained in the service she would have required an expenditure of about £2,000 or perhaps £3,000 to make her fit for sea.

This sum of £1,000 was sanctioned on the 20th January, 1906, H. 229/06.

In July, 1906, the Commissioners forwarded tenders for this additional work. The lowest was £1,094, and there were other items viz., compass, £17; lodging allowances for the crew, £110. In addition to these items a schedule of rates of wages was submitted in case there were any additional expenses in the matter.

(2)—New Steamer for the Irish Lights Service to replace "Princess Alexandra."

The new vessel, which was named the "Alexandra," was completed in August, 1904.

In the following December the Commissioners of Irish Lights asked for sanction to the supply of certain extras, which included a donkey boiler for the stokehold, costing £660, circulating valves on boilers £87, and other important items, the whole amounting to £805.

We called the attention of the Commissioners to the fact that these items should have been included in the specification of the vessel. As the additions were stated to be absolutely essential, they were sanctioned by the Board of Trade. The mistake was apparently made by the Commissioners' Engineer.

The vessel had to go back to the builders, and was consequently not ready till May, 1905. Some defects had to be made good by the builders to enable the vessel to fulfil speed conditions.

The following additions have since been submitted for sanction:—

Ash ejector pump	£130	Sanctioned	H.13896/05.
Lagging Bulkheads	£ 80		
Chain-cutting shears,	£45 10s.	do.	H.16067/05.
Lodging allowances to Crew	£333	do.	H.10268/06.
Drawings, etc.	£ 75		
Sundries	£ 40		

Repairs and Alterations, £319.—The Board queried these items as they were undertaken while the vessel was in the builders' hands and the final instalment unpaid. The Commissioners furnished explanations which were not satisfactory. The Board, however sanctioned all except a sum of £68, which they were of opinion should be borne by the Contractors.

(3)—Accounts presented to Commissioners of Irish Lights for Repair of Nautical Instruments, &c.

Mr. Moore, who supplies charts to and repairs the instruments of the Commissioners, omitted to present accounts for work done during the period 1894 to 1901. His business was placed in the hands of chartered accountants for the purpose of realising outstanding accounts, and a claim was made on the Commissioners for a sum of £96 19s. 8d. in full settlement.

The Board wrote to the Commissioners, pointing out that such a state of affairs should not have been allowed to exist, and asking what steps the Commissioners have now adopted in order to prevent the recurrence of cases of this kind.

They replied that every possible effort was made by them to obtain an account from Mr. Moore, but until his affairs were placed in the hands of the accountants all efforts were fruitless and remonstrance unavailing. They stated that contractors and other creditors are written to from time to time requesting them to furnish all outstanding accounts, and on more than one occasion firms causing trouble in this way have been struck off the list of contractors. At the conclusion of each financial year all persons having claims against the Commissioners are requested to furnish them or to sign a certificate of discharge.

The payment of the accounts was sanctioned by the Board on the 10th August, 1906.

(4)—Oyster Island—Disused lighthouse tower removed without Board of Trade sanction.

A new lighthouse was being erected at this place, and in July, 1891, the Commissioners of Irish Lights ordered the old tower to be demolished and the materials to be used in the construction of the new buildings.

The work of demolition was commenced in December, 1892, and four days later the Commissioners applied for sanction to the expenditure involved, amounting to £40.

We were advised that the old tower would be useful as a guide to navigators, and informed the Commissioners that we proposed to withhold sanction. They then stated (January, 1893) that the tower had already been taken down.

There was no option but to sanction the expenditure, but the Commissioners were warned that in future they must apply for sanction before any work is commenced.

It was stated that the new work could not be finished without utilising some of the materials of the old tower, and that sanction was anticipated as regards the expenditure in order that the workmen should not be delayed.

(5)—Purchase of Clocks for timing fog-signals in the Irish Lights Service.

In June, 1904, the Commissioners of Irish Lights asked for sanction to the purchase of clocks from a Dublin firm at £11 each. They stated that their engineer had reported that the clocks in use were unsatisfactory, and that he had persuaded the firm in question to construct an experimental clock which had proved satisfactory.

We asked the Trinity House for their observations on this letter, and for information as to the clocks used by them.

The Elder Brethren stated that their clocks, which were obtained from a firm in London, were quite efficient and cost only £3 5s. each.

We then suggested to the Commissioners the advisability of purchasing clocks similar to those used by Trinity House, and after repeated applications for sanction to the original proposal, the Commissioners accepted the situation. Apparently they again consulted the Dublin firm, who submitted a tender for clocks, presumably of the Trinity House pattern at a cost of £3 3s. each. This proposal was sanctioned by the Board on 13th March, 1905.

(6)—Claims made by Keepers of the Skelligs and Inishtearaght Lighthouses, for lodging allowance owing to the new dwellings at Valentia not being ready for occupation.

It appeared that the keepers had to provide lodgings for their families during varying periods in 1901.

The Board asked for the reasons for the delay of three years in asking for sanction to the payment, and were informed that the late Accountant and Cashier had the subject under consideration, but through some accident the matter was lost sight of until the keepers brought the claims to the notice of the Inspecting Committee during the tour of inspection in 1904.

The amounts were : 2 keepers, £5 7s. 4d. ; 2 keepers, £5 8s. 6d. ; 2 keepers, 19s. 10d. ; 1 keeper, £3 18s. 2d. ; and 1 keeper, £1 6s. 10d.

The expenditure was sanctioned on the 16th February, 1905.

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(7)—Transfer of T. Byrne, Light Keeper, from Clare Island to Eagle Island.

The Commissioners of Irish Lights asked for sanction to the payment of a gratuity of £6 10s. as compensation for his sudden removal.

The Commissioners stated that Byrne, who expected to remain at Clare Island for about three years in the ordinary course, had made arrangements accordingly, and when the order for removal came he had to sell his stock, etc., at a great disadvantage.

This happened a few months after his appointment to Clare Island, and the keeper estimated his losses at £12 19s.

The Commissioners were asked for the reason for the sudden transfer. They rather curtly replied that "a keeper was suddenly required at a neighbouring station and this man was sent."

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(8)—Light at Oyster Island, Sligo.—Inaccurate description in Admiralty List of Lights.

This description was furnished to the Admiralty by the Commissioners of Irish Lights.

The white light is actually visible over an arc of 8 degrees (S. 29° E. to S. 21° E.), but was described as showing from S. 29° E. through E to S. 21° E., which would be 352 degrees.

Mr. C. M'Arthur, M.P., put a question in the House of Commons as to this error, and we asked the Commissioners for an explanation. They replied that "it is obvious to anyone reading the information given in the descriptive paragraph of the Admiralty List of Lights about Oyster Island Light, for which the Commissioners are responsible that the white light is visible over an arc of 8 degrees and not 352 degrees."

We replied that we were advised to the contrary and asked for further observations.

The Commissioners then stated that it escaped their attention when this light was established that the Notice to Mariners conveyed the impression that the white arc was visible over 352 degrees instead of 8 degrees.

The correction was accordingly conveyed to the Admiralty.

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(9)—Proposed Lighthouse and Fog-Signal at Mizen Head.

Before giving their statutory sanction to this work the Trinity House required certain information which necessitated a survey of the locality by the Irish Lights Commissioners.

The Irish Lights Commissioners estimated the cost of this survey at £100, and the expenditure of this amount was sanctioned by the Board of Trade in May, 1905 (H.6757/05).

The original estimate of the cost of the light and fog signal was £7,550 (£4,000 for the light), but was subsequently increased to £14,500 (with a more powerful light than at first proposed).

The Irish Lights Commissioners explained (H.16793) that the original estimates "were merely rough approximations," and that the survey had shown them to be "totally inadequate."

The cost of the survey was £121 3s. 3d., and the Irish Lights Commissioners explained the increase over the estimate of £100 by stating that when the estimate was forwarded "they were unaware that Mizen Head was practically an island, and that boats would be required to enable the surveyor to carry out his work."

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(10)—Works at Kingstown on land leased from the Board of Works.

In October, 1905, the Irish Lights Commissioners submitted an estimate of £500 for certain works at the Kingstown Stores.

In 1873 the Commissioners leased certain ground at Kingstown from the Board of Works, and in 1899 applied for sanction to lease further adjoining land from the Board of Works. The Board of Trade made inquiries whether any further expenditure beyond the yearly rental of £6 13s. 4d. was contemplated, and were informed that no further expenditure would be incurred during that year, but that about £15 would be spent in the following year. On the strength of that information the Board of Trade sanctioned the lease.

But in 1904 the Irish Lights Commissioners entered into a further Agreement with the Board of Works by which they bound themselves to carry out certain work, and as this did not involve any immediate expenditure, they did not bring it to the notice of the Board of Trade.

The 1873 lease was terminable by the Board of Works at 12 months' notice, and the 1904 lease at three months' notice.

In 1905, therefore, the Board of Trade had no option but to sanction the proposed expenditure, but before doing so obtained an assurance from the Board of Works that the land is not likely to be required for other purposes.

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(11)—Cost of Manual Reed Foghorns in the Irish Lights Service.

The Commissioners of Irish Lights proposed to establish these foghorns on seven lightships and asked for our sanction to the purchase of seven from Messrs. Chance Brothers and Company at a cost of £88 each. It was stated that these fog horns were of a similar type to those used in the Trinity House Service.

The Board having ascertained that the Elder Brethren made these instruments in their Blackwall Workshops at a cost of £45 each, asked the Commissioners of Irish Lights whether they would get the Elder Brethren to supply them for the Irish Lights Service.

The Commissioners stated that on a previous occasion two foghorns were purchased from the Elder Brethren, and that in addition to the quoted price of £45 each there were charges of £5 15s. 9d. each for departmental expenses and £2 8s. 9d. each for carriage while necessary alterations cost from £6 to £10, bringing the cost of each horn to about £60. Messrs. Chance had reduced their price to £70 each, and the Commissioners were of opinion that more satisfactory results would be obtained by accepting this offer as, when obtaining goods from a contractor, they can insist upon the exact fulfilment of their requirements.

The Board then sanctioned the purchase from Messrs. Chance at the reduced price of £70 each.

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(12)—Fog Bell at Barr Point, Larne.

In 1902 the Commissioners of Irish Lights brought forward a proposal to place a fog bell on Barr Point, the cost to be £80 (not including cost of land).

This proposal was not objected to by the Advisory Committee and was sanctioned by the Board on the 29th March, 1902.

In the next year's estimates this proposal appeared under the heading of New Works sanctioned but not yet commenced, and the cost was given as £730.

The Commissioners explained that the additional £650* was for land and machinery.

The President decided that the matter should again be submitted to the Advisory Committee in view of the large increase of the estimate. H. 17709.

This was done and the work finally sanctioned.

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* A tender for electrical apparatus at a cost of over £300 was sanctioned by the Board.

APPENDIX A.

V.

Sir T. W. P. Blomefield.

STATEMENT OF THE ANNUAL EXPENDITURE OF THE GENERAL LIGHTHOUSE AUTHORITIES FOR THE SEVEN YEARS 1899–1906.

SIR THOMAS BLOMEFIELD'S TABLE A.

APPENDIX A.—V.

Sir T. W. P. Blomefield: Table A.

GENERAL LIGHTHOUSE FUND.

STATEMENT of the ANNUAL EXPENDITURE of TRINITY HOUSE, the COMMISSIONERS of IRISH LIGHTS, and the COMMISSIONERS of NORTHERN LIGHTHOUSES for the Seven Years ended 31st, March 1906.

Year.	Maintenance of Lighthouses.			Maintenance of Lightvessels.			Maintenance of Buoys and Beacons.			Maintenance of Steam and Sailing Vessels.			Maintenance of District Storehouses, &c			Head Office Expenses.		
	Trinity House.	Irish.	Northern.	Trinity House.	Irish.	North-ern.	Trinity House.	Irish.	North-ern.	Trinity House.	Irish.	Northern.	Trinity House.	Irish.	North-ern.	Trinity-House.	Irish.	North-ern.
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Year ended March 31, 1900 -	42,637	30,128	28,080	71,020	18,969	1,089	6,273	1,255	1,295	37,704	14,085	18,179	13,893	4,330	792	21,077	7,687	6,126
,, ,, ,, ,, 1901 -	42,872	31,588	30,927	67,726	18,491	1,473	6,294	830	1,527	48,950	14,427	17,793	13,576	4,522	769	21,327	7,710	6,615
,, ,, ,, ,, 1902 -	42,571	35,042	31,161	74,807	16,153	1,210	6,793	1,493	3,084	48,419	18,950	20,269	14,487	4,664	731	21,736	7,372	6,808
,, ,, ,, ,, 1903 -	41,533	34,357	30,791	75,348	20,914	1,608	8,244	2,216	2,720	45,608	14,140	18,469	13,775	3,795	838	23,647	7,796	6,725
,, ,, ,, ,, 1904 -	45,713	32,652	31,732	76,023	19,236	1,148	7,430	1,670	2,947	48,646	16,420	18,262	15,700	3,945	800	22,009	7,700	6,573
,, ,, ,, ,, 1905 -	46,601	33,417	33,346	82,361	18,483	2,105	7,416	3,125	2,065	44,141	13,719	18,725	13,186	3,670	911	21,020	7,688	7,350
,, ,, ,, ,, 1906 -	45,342	34,630	34,950	73,060	19,322	1,303	6,329	2,209	1,807	44,491	14,696	18,700	9,622	3,364	900	21,341	7,883	7,650
TOTAL - -	307,269	231,814	220,987	520,345	131,568	9,936	48,779	12,798	15,445	317,959	106,437	130,397	94,329	28,290	5,741	152,157	53,836	47,847
Average annual cost -	43,895	33,116	31,570	74,335	18,796	1,419	6,968	1,828	2,207	45,423	15,205	18,628	13,476	4,042	820	21,737	7,691	6,835

GENERAL LIGHTHOUSE FUND—*continued.*

STATEMENT of the ANNUAL EXPENDITURE of TRINITY HOUSE, the COMMISSIONERS of IRISH LIGHTS, and the COMMISSIONERS of NORTHERN LIGHTHOUSES for the Seven Years ended March 31st, 1906—*continued.*

Year.	Miscellaneous Expenses.			Superannuation Allowances.			New Works.			Total Expenditure.			Total Expenditure. (except New Works)		
	Trinity House.	Irish.	Northern.	Trinity House.	Irish.	Northern.	Trinity House.	Irish.	Northern.	Trinity House.	Irish.	Northern.	Trinity House.	Irish.	Northern.
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Year ended March 31, 1900 - - -	12,618	2,086	2,123	14,117	4,899	4,247	39,681	23,361	35,292	259,111	106,798	97,224	219,430	83,437	61,932
,, ,, ,, ,, 1901 - - -	10,439	3,150	2,334	14,493	5,713	4,470	72,631	28,409	19,565	298,307	114,840	85,473	225,676	86,431	65,908
,, ,, ,, ,, 1902 - - -	12,604	2,940	3,044	14,583	6,541	4,810	28,822	30,067	13,043	264,823	123,222	84,161	236,001	93,155	71,118
,, ,, ,, ,, 1903 - - -	12,619	3,378	3,086	15,021	7,015	4,583	41,667	18,033	30,213	277,461	111,643	99,033	235,794	93,610	68,820
,, ,, ,, ,, 1904 - - -	13,001	3,671	2,820	15,813	7,126	4,828	43,144	36,188	27,292	287,478	128,609	96,403	244,334	92,421	69,111
,, ,, ,, ,, 1905 - - -	11,064	3,412	2,377	16,762	7,663	4,746	27,775	40,365	19,568	270,327	131,541	91,193	242,552	91,176	71,625
,, ,, ,, ,, 1906 - - -	6,728	3,058	2,470	17,221	7,946	4,819	16,074	11,962	22,412	240,208	105,070	95,010	224,134	93,108	72,598
TOTAL - -	79,073	21,695	18,254	108,010	46,903	32,503	269,794	188,385	167,385	1,897,715	821,723	648,497	1,627,921	633,338	481,112
Average annual cost - - - -	11,296	3,099	2,608	15,430	6,700	4,643	38,542	26,912	23,912	271,102	117,389	92,642	232,560	90,478	68,730

APPENDIX A.

VI.

Sir T. W. P. Blomefield.

TABLE SHOWING THE RELATIVE PERCENTAGES OF THE DETAILED EXPENDITURE OF THE GENERAL LIGHTHOUSE AUTHORITIES.

SIR THOMAS BLOMEFIELD'S TABLE B.

APPENDIX A.—VI.

Sir T. W. P. Blomefield: Table B.

GENERAL LIGHTHOUSE FUND.

TABLE showing the ratio per cent. to the TOTAL AVERAGE EXPENDITURE of the AVERAGE EXPENDITURE on the VARIOUS SERVICES.

Expenditure.	Trinity House.	Commissioners of Irish Lights.	Commissioners of Northern Lighthouses.
Including New Works.	Per cent.	Per cent.	Per cent.
Maintenance of Lighthouses	16·2	28·2	34·1
„ Lightvessels	27·4 } 43·6	16·0 } 44·2	1·5 } 35·6
„ Buoys and Beacons	2·6	1·6	2·4
„ Steam Vessels	16·7	13·0	20·1
„ District Storehouses	5·0	3·4	0·9
Head Office Expenses	8·0	6·6	7·4
Miscellaneous Expenses	4·2	2·6	2·8
Superannuation Allowances	5·7	5·7	5·0
New Works in Building Lighthouses	14·2	22·9	25·8
	100·0	100·0	100·0
Excluding New Works.			
Maintenance of Lighthouses	18·9	36·6	45·9
„ Lightvessels	32·0 } 50·9	20·8 } 57·4	2·1 } 48·0
„ Buoys and Beacons	3·0	2·0	3·2
„ Steam Vessels	19·5	16·8	27·1
„ District Storehouses	5·8	4·5	1·2
Head Office Expenses	9·3	8·5	9·9
Miscellaneous Expenses	4·9	3·4	3·8
Superannuation Allowances	6·6	7·1	6·8
	100·0	100·0	100·0

APPENDIX A.

VII.

Sir T. W. P. Blomefield.

TABLE SHOWING THE NUMBER AND CHARACTER OF THE LIGHTHOUSES, ETC., MAINTAINED BY THE GENERAL LIGHTHOUSE AUTHORITIES IN DECEMBER, 1906.

SIR THOMAS BLOMEFIELD'S TABLE C.

APPENDIX A.—VII.

Sir T. W. P. Blomefield : Table C.

Table showing the Number and Character of the Lighthouses, etc., Maintained by the General Lighthouse Authorities in December 1906.

LIGHTHOUSES.

——	Trinity House.	Irish Lights Commissioners.	Northern Lighthouse Commissioners.
Number of Lighthouses	85*	75	91
Island Stations	7	14	23
Shore „	55	39	56
Rock „	23	22	12
Fitted with Siren	17	9	30†
„ „ Explosive Charge	11	8	5
„ „ Rocket	1	–	
„ „ Reed Horn	4	–	1
„ „ Bell	10	5	–
„ „ Gun	–	1	–
Separate Station—Gun and Explosive	1	–	–
Ditto Reed Horn	1	–	–
Number of Staff :			
Staff of 7	–	–	1
„ 6	1	3(e)	–
„ 5	5(a)	–	–
„ 4	13(b)	18(c)	12
„ 3	23(c)	8	27
„ 2	29(a)	16	31
„ 1	–	29(f)	9
Attendants only	14(d)	1	11

(a) One of these is a double station.

(b) Two of these are double stations.

(c) Three of these are double stations.

(d) Includes seven River Lights.

(e) Lloyd's pay for the maintenance of one Keeper at Fastnet.

(f) Stations at which female Assistant Keepers are employed.

* This total is made up as follows :—

82 Lighthouse Stations (11 of which are regarded as Double Stations and 14 of which are unwatched lights).
1 Lighthouse at Gibraltar.

2 Separate Stations at which Fog-signals are only maintained.

† Four under construction.

LIGHTVESSELS.

	Trinity House.	Irish Light Commissioners.	Northern Lighthouse Commissioners.
Number of Lightvessels	52*	11	1
Fitted with Steam Siren	7	–	
„ „ Siren	13	2	1
„ „ Reed Horn	8	–	
„ „ Gun		2	–
„ „ Explosive Charges		2	
Number of Crew :			
Crew of 12		3	–
„ 11	42	8	1
„ 9	6	–	
„ 8	2	–	
„ 6	2	–	

BUOYS AND BEACONS.

Number of Buoys and Beacons	659†	174	210
Ordinary Buoys	517	97	98
Gas or Gas Bell Buoys	56	4	31
Bell or Whistling Buoys	22	5	2
Gas and Whistling Buoys	–	3	1
Ordinary Beacons	64	63	55
Gas Beacons	–	2	23

* This includes "Dover Pier Works" and "Warner" Lightships maintained for Admiralty.

† This includes navigational buoys, maintained for other authorities, but is exclusive of two ballast buoys and one sewer buoy at Lowestoft.

APPENDIX A.

VIII.

Sir T. W. P. Blomefield.

GENERAL LIGHTHOUSE FUND.

TABLE GIVING DETAILS OF EXPENDITURE FOR THE TWO PERIODS, 1892-1899 AND 1899-1906.

SIR THOMAS BLOMEFIELD'S TABLE D.

APPENDIX A.—VIII.

Sir T. W. P. Blomefield: Table D.

GENERAL LIGHTHOUSE FUND.

Table giving Details of the Expenditure for the two Periods 1892–1899 and 1899–1906.

TRINITY HOUSE.

DETAILS of EXPENDITURE under various Headings for the Seven Years ended March 31st, 1906.

	1899-1900.	1900–1.	1901–2.	1902–3.	1903–4.	1904–5.	1905–6.	Total.
Maintenance of Lighthouses:	£	£	£	£	£	£	£	£
(a) Pay and Allowances of Staff, including Provisions	19,880	20,390	20,264	20,358	20,204	19,912	19,841	140,849
(b) Oil, Coal, and other Stores	10,623	11,271	11,572	10,974	12,331	11,544	9,921	78,236
(c) Repairs and Renewals	9,399	8,351	8,071	7,092	10,439	12,478	12,967	68,797
(d) Rents	291	289	290	523	342	282	325	2,342
(e) Incidental Expenses	2,444	2,571	2,374	2,586	2,397	2,385	2,288	17,045
Total, Maintenance of Lighthouses	42,637	42,872	42,571	41,533	45,713	46,601	45,342	307,269
Maintenance of Lightvessels:								
(a) Pay and Allowances of Staff, includin Provisions	44,776	43,547	45,336	46,944	47,913	48,219	47,813	324,548
(b) Oil, Coal and other Stores	8,318	6,959	9,430	7,534	7,665	11,138	8,074	59,118
(c) Repairs and Renewals	17,561	16,944	19,831	20,490	20,104	22,773	16,878	134,581
(d) Incidental Expenses	365	276	210	380	341	231	295	2,098
Total, Maintenance of Lightvessel s	71,020	67,726	74,807	75,348	76,023	82,361	73,060	520,345
Maintenance of Buoys and Beacons	6,273	6,294	6,793	8,244	7,430	7,416	6,329	48,779

Maintenance of Steam and Sailing Vessels:								
(a) Pay and Allowances of Staff, including Provisions	21,825	21,888	22,296	23,066	23,318	23,298	23,247	158,938
(b) Coals and Stores	7,555	9,252	9,224	8,603	8,115	8,624	7,476	58,849
(c) Repairs and Renewals	11,763	21,185	19,126	16,719	20,295	13,682	14,962	117,732
(d) Incidential Expenses	615	572	918	434	647	405	424	4,015
(e) Deduct Amount credited for use of Plant,&c., in removing Wrecks	4,054	3,947	3,145	3,214	3,729	1,868	1,618	21,575
Total, Maintenance of Steam and Sailing Vessels	37,704	48,950	48,419	45,608	48,646	44,141	44,491	317,959
Maintenance of District Storehouses, &c.:								
(a) Pay and Allowances of Staff	7,017	6,942	7,056	7,148	7,137	6,532	4,917	46,749
(b) Coals, Rent and Repairs	4,859	4,439	5,233	4,536	6,652	4,444	2,927	33,090
(c) Incidental Expenses	2,107	2,195	2,198	2,091	1,911	2,210	1,778	14,490
Total, Maintenance of District Storehouses	13,983	13,576	14,487	13,775	15,700	13,186	9,622	94,329
Head Office Expenses:								
(a) Salaries and Allowances	18,454	18,830	19,159	20,887	19,247	18,475	18,720	133,772
(b) Office and House Expenses	2,623	2,497	2,577	2,760	2,762	2,545	2,621	18,385
Total, Head Office Expenses	21,077	21,327	21,736	23,647	22,009	21,020	21,341	152,157
Miscellaneous Expenses:								
(a) Law	442	122	471	485	413	200	176	2,309
(b) Travelling	3,318	3,823	3,471	4,165	4,157	3,937	3,081	25,952
(c) Experiments	238	305	2,568	751	482	259	463	5,066
(d) Removal of Wrecks	6,558	5,775	5,637	6,727	7,471	6,195	1,757	40,120
(e) Incidental Expenses	2,062	414	457	491	478	473	1,251	5,626
Total, Miscellaneous Expenses	12,618	10,439	12,604	12,619	13,001	11,064	6,728	79,073
Superannuation Allowances	14,117	14,493	14,583	15,021	15,813	16,762	17,221	108,010
New Works in Building Lighthouses, &c.	39,681	72,631	28,822	41,667	43,144	27,775	16,074	269,794
Grand Total	259,110	298,308	264,822	277,462	287,479	270,326	240,208	1,897,715

GENERAL LIGHTHOUSE FUND.

COMMISSIONERS OF NORTHERN LIGHTHOUSES.

APPENDICES:

DETAILS OF EXPENDITURE under various Headings for the Seven Years ended March 31st, 1906.

	1899–1900	1900–1901	1901–2	1902–3	1903–4	1904–5	1905–6	Total.
Maintenance of Lighthouses:	£	£	£	£	£	£	£	£
(a) Pay and Allowances of Staff, including Provisions	15,207	16,114	16,336	16,632	17,089	17,394	17,805	116,577
(b) Oil, Coal and other Stores	5,408	6,647	6,361	5,700	5,985	6,381	5,978	42,460
(c) Repairs and Renewals	3,771	4,185	4,608	4,303	4,439	5,312	6,782	33,400
(d) Rents	740	789	757	792	841	853	870	5,642
(e) Incidental Expenses	2,954	3,192	3,099	3,364	3,378	3,406	3,515	22,908
Total, Maintenance of Lighthouses	28,080	30,927	31,161	30,791	31,732	33,346	34,950	220,987
Maintenance of Lightvessels:								
(a) Pay and Allowances of Staff, including Provision	919	936	956	980	918	935	994	6,688
(b) Oil, Coal and other Stores	95	133	116	94	96	103	93	730
(c) Repairs and Renewals	68	398	127	520	125	997	207	2,442
(d) Incidental Expenses	7	6	11	14	9	20	9	76
Total, Maintenance of Lightvessels	1,089	1,473	1,210	1,608	1,148	2,105	1,303	9,936
Maintenance of Buoys and Beacons	1,295	1,527	3,084	2,720	2,947	2 065	1,807	15,445

Maintenance of Steam and Sailing Vessels:								
(a) Pay and Allowances of Staff, including Provisions	8,979	9,248	9,565	9,598	9,624	10,228	10,187	67,429
(b) Coals and Stores	3,636	4,525	3,531	3,399	4,002	3,563	3,668	26,324
(c) Repairs and Renewals	5,017	3,486	6,584	4,920	4,049	4,269	4,147	32,472
(d) Incidental Expenses	547	534	589	552	587	665	698	4,172
(e) Deduct Amount credited for use of Plant, &c., in removing Wrecks	—	—	—	—	—	—	—	—
Total, Maintenance of Steam and Sailing Vessels	18,179	17,793	20,269	18,469	18,262	18,725	18,700	130,397
Maintenance of District Storehouse, &c.:								
(a) Pay and Allowances of Staff	282	266	248	272	312	357	393	2,130
(b) Coals, Rent and Repairs	288	329	321	386	298	314	318	2,254
(c) Incidental Expenses	222	174	162	180	190	240	189	1,357
Total, Maintenance of District Storehouses	792	769	731	838	800	911	900	5,741
Head Office Expenses:								
(a) Salaries and Allowances	5,314	5,858	5,457	5,839	5,667	6,588	6,821	41,544
(b) Office and House Expenses	812	757	1,351	886	906	762	829	6,303
Total, Head Office Expenses	6,126	6,615	6,808	6,725	6,573	7,350	7,650	47,847
Miscellaneous Expenses:								
(a) Law	226	334	230	447	370	37	14	1,658
(b) Travelling	1,132	1,247	1,408	1,607	1,595	1,435	1,520	9,944
(c) Experiments	12	—	188	3	10	67	9	289
(d) Removal of Wrecks	51	—	242	—	—	—	—	293
(e) Incidental Expenses	702	753	976	1,029	845	838	927	6,070
Total, Miscellaneous Expenses	3,123	2,334	3,044	3,086	2,820	2,377	2,470	18,254
Superannuation Allowances	4,247	4,470	4,810	4,583	4,828	4,746	4,819	32,503
New Works in Building Lighthouses, &c.	35,292	19,565	13,043	30,213	27,292	19,568	22,412	167,385
Grand Total	97,223	85,473	84,160	99,033	96,402	91,193	95,011	648,495

GENERAL LIGHTHOUSE FUND.

COMMISSIONERS OF IRISH LIGHTS.

DETAILS OF EXPENDITURE under various Headings for the Seven Years ended March 31st, 1906.

	1899–1900.	1900–1.	1901–2.	1902–3.	1903–4.	1904–5	1905–6.	Total.
Maintenance of Lighthouses:	£	£	£	£	£	£	£	£
(a) Pay and Allowances of Staff, including Provisions	14,402	15,276	15,298	15,906	15,694	15,658	15,666	107,900
(b) Oil, Coal and other Stores	7,146	7,447	7,309	7,579	6,816	7,171	6,740	50,208
(c) Repairs and Renewals	4,894	5,134	8,557	6,704	6,319	6,773	8,028	46,409
(d) Rents	919	881	939	923	823	884	923	6,292
(e) Incidental Expenses	2,767	2,850	2,939	3,245	3,000	2,931	2,273	21,005
Total, Maintenance of Lighthouses	30,128	31,588	35,042	34,357	32,652	33,417	34,630	231,814
Maintenance of Lightvessels:								
(a) Pay and Allowance of Staff, including Provisions	9,731	9,615	9,648	9,686	9,656	9,619	10,423	68,378
(b) Oil, Coal and other Stores	2,008	1,777	1,662	1,724	2,101	2,233	1,192	12,697
(c) Repairs and Renewals	5,563	5,534	3,278	7,759	6,013	5,081	6,084	39,312
(d) Incidental Expenses	1,667	1,565	1,565	1,745	1,466	1,550	1,623	11,181
Total, Maintenance of Lightvessels	18,969	18,491	16,153	20,914	19,236	18,483	19,322	131,568
Maintenance of Buoys and Beacons	1,255	830	1,493	2,216	1,670	3,125	2,209	72,798

Maintenance of Steam and Sailing Vessels:								
(a) Pay and Allowances of Staff, including Provisions	8,032	7,713	8,143	8,005	8,188	8,102	8,126	56,309
(b) Coals and Stores	3,419	4,334	3,464	3,940	4,711	4,149	4,676	28,693
(c) Repairs and Renewals	2,435	2,087	3,771	1,736	3,195	1,212	1,655	16,091
(d) Incidental Expenses	199	293	3,572*	459	326	256	239	5,344
(e) Deduct Amount credited for use of Plant, &c., in removing Wrecks	—	—	—	—	—	—	—	—
Total, Maintenance of Steam and Sailing Vessels	14,085	14,427	18,950	14,140	16,420	13,719	14,696	106,437
Maintenance of District Storehouses, &c.:								
(a) Pay and Allowances of Staff	2,207	2,232	2,321	2,350	2,332	2,454	2,352	16,248
(b) Coals, Rent and Repairs	84	128	198	335	314	273	275	1,607
(c) Incidental Expenses	2,039	2,162	2,145	1,110	1,299	943	737	10,435
Total, Maintenance of District Storehouses	4,330	4,522	4,664	3,795	3,945	3,670	3,364	28,290
Head Office Expenses:								
(a) Salaries and Allowances	5,761	5,453	5,318	5,554	5,627	5,524	5,250	38,487
(b) Office and House Expenses	1,926	2,257	2,054	2,242	2,073	2,164	2,633	15,349
Total, Head Office Expenses	7,687	7,710	7,372	7,796	7,700	7,688	7,883	53,836
Miscellaneous Expenses:								
(a) Law	—	254	297	89	391	294	202	1,527
(b) Travelling	1,527	1,947	1,798	2,103	2,130	2,564	2,101	14,170
(c) Experiments	—	79	111	235	318	44	67	854
(d) Removal of Wrecks	34	5	77	209	105	2	—	432
(e) Incidental Expenses	525	865	657	742	727	508	688	4,712
Total, Miscellaneous Expenses	2,086	3,150	2,940	3,378	3,671	3,412	3,058	21,695
Superannuation Allowances	4,899	5,713	6,541	7,015	7,126	7,663	7,946	46,903
New Works in Building Lighthouses, &c.	23,361	28,409	30,067	18,033	36,188	40,365	11,962	188,385
Grand Total	106,800	114,840	123,222	111,644	128,608	131,542	105,070	821,726

* Including large sums for employment of s.s. "Cragside," which was chartered to act as lighthouse tender while the s.s. "Princess Alexandra" was under repair.

MERCANTILE MARINE FUND.

TRINITY HOUSE.

DETAILS OF EXPENDITURE under various Headings for the Seven Years ended March 31st, 1899.

	1892–3.	1893–4.	1894–5.	1895–6.	1896–7.	1897–8.	1898–9.	Total.
Maintenance of Lighthouses;	£	£	£	£	£	£	£	£
(a) Pay and Allowances of Staff, including Provisions	16,760	16,712	16,572	17,016	16,827	17,860	17,683	119,430
(b) Oil, Coal and other Stores	8,465	8,933	9,092	9,317	10,164	9,722	10,016	65,709
(c) Repairs and Renewals	10,072	11,966	8,544	8,231	8,231	7,666	8,153	62,869
(d) Rents	298	306	293	280	312	289	302	2,080
(e) Incidental Expenses	2,378	2,251	2,451	2,691	2,292	2,453	2,404	16,920
Total, Maintenance of Lighthouses	37,973	40,168	36,952	37,541	37,826	37,990	38,558	267,008
Maintenance of Lightvessels;								
(a) Pay and Allowances, including Provisions	45,795	45,525	45,867	46,338	45,989	45,896	45,205	320,615
(b) Oil, Coal and other Stores	8,115	6,026	8,767	7,066	5,469	5,985	6,373	47,801
(c) Repairs and Renewals	23,429	17,118	23,129	24,553	15,020	17,211	12,487	132,947
(d) Incidental Expenses	348	328	366	652	370	350	332	2,746
Total, Maintenance of Lightvessels	77,687	68,997	78,129	78,609	66,848	69,442	64,397	504,109
Maintenance of Buoys and Beacons	9,702	8,523	8,285	5,348	6,997	7,250	5,130	51,235

Maintenance of Steam and Sailing Vessels:								
(a) Pay and Allowances, including Provisions	19,336	20,020	19,964	19,650	19,628	20,070	21,212	139,880
(b) Coal and Stores	7,800	6,851	7,206	6,764	6,472	6,870	7,688	49,651
(c) Repairs and Renewals	10,377	16,952	11,579	11,269	9,596	17,040	12,502	89,315
(d) Incidental Expenses	615	736	446	528	413	1,673	465	4,876
(e) Deduct Amount credited for use of Plant, etc., in removing Wrecks	2,072	3,715	3,471	3,009	2,619	2,638	3,432	20,956
Total, Maintenance of Steam and Sailing Vessels	36,056	40,844	35,724	35,202	33,490	43,015	38,435	262,766
Maintenance of District Storehouses:								
(a) Pay and Allowances of Staff	6,509	6,546	6,608	6,638	6,791	7,120	7,017	47,229
(b) Coals, Rent and Repairs	4,257	5,375	4,199	7,167	6,839	4,870	4,602	37,309
(c) Incidental Expenses	1,668	1,751	1,919	1,713	1,759	2,125	1,927	12,862
Total, Maintenance of District Storehouses	12,434	13,672	12,726	15,518	15,389	14,115	13,546	97,400
Head Office Expenses:								
(a) Salaries and Allowances	18,343	17,160	17,626	17,693	18,023	18,200	18,354	125,399
(b) Office and House Expenses	3,088	2,902	2,671	3,037	2,680	2,724	2,538	19,640
Total, Head Office Expenses:	21,431	20,062	20,297	20,730	20,703	20,924	20,892	145,039
Miscellaneous Expenses:								
(a) Law	249	258	135	253	493	233	226	1,847
(b) Travelling	3,378	3,018	3,200	3,288	3,266	3,696	3,278	23,124
(c) Experiments	445	656	391	503	753	329	592	5,669
(d) Removal of Wrecks	7,554	6,090	4,446	2,983	4,355	2,752	5,620	33,800
(e) Incidental Expenses	341	764	571	426	530	512	439	3,583
Total, Miscellaneous Expenses	11,967	10,786	8,743	7,453	9,397	7,522	10,155	66,023
Superannuation Allowances	11,373	12,767	13,402	13,985	14,636	14,563	14,170	94,896
New Works in Building Lighthouses, etc.	10,723	15,745	14,278	26,385	21,586	42,058	28,144	158,919
Grand Total	229,346	231,564	228,536	240,771	226,872	256,879	233,427	1,647,395

MERCANTILE MARINE FUND.

COMMISSIONERS OF NORTHERN LIGHTHOUSES.

DETAILS of EXPENDITURE under various Headings for the Seven Years ended March 31st, 1899.

	1892–3	1893–4	1894–5	1895–6	1896–7	1897–8	1898–9	Total.
Maintenance of Lighthouses:	£	£	£	£	£	£	£	£
(a) Pay and Allowances of Staff, including Provisions	13,312	12,881	13,220	13,344	13,841	14,298	14,100	94,996
(b) Oil, Coal and other Stores	4,071	3,889	3,982	3,627	4,337	4,138	4,314	28,358
(c) Repairs and Renewals	5,407	3,705	6,212	4,003	3,703	3,233	3,449	29,712
(d) Rent	737	731	840	712	694	696	749	5,159
(e) Incidental Expenses	3,596	3,257	3,221	2,926	2,986	3,060	2,925	21,971
Total, Maintenance of Lighthouses	27,123	24,463	27,475	24,612	25,561	25,425	25,537	180,196
Maintenance of Lightvessels:								
(a) Pay and Allowances of Staff, including Provisions	860	853	832	846	969	955	947	6,262
(b) Oil, Coal and other Stores	129	98	100	89	100	49	46	611
(c) Repairs and Renewals	47	153	80	72	871	70	954	2,247
(d) Incidental Expenses	17	9	8	6	5	10	13	68
Total, Maintenance of Lightvessels	1,053	1,113	1,020	1,013	1,945	1,084	1,960	9,188
Maintenance of Buoys and Beacons:	1,502	1,795	1,454	2,130	2,986	1,695	2,100	13,662

Maintenance of Steam and Sailing Vessels:								
(a) Pay and Allowances of Staff, including Provisions	6,139	7,598	7,973	8,178	8,262	8,699	8,366	55,215
(b) Coal and Stores	1,872	1,983	2,222	2,027	2,136	2,454	2,758	15,452
(c) Repairs and Renewals	4,206	3,042	2,622	2,614	2,301	7,865	13,063	35,703
(d) Incidental Expenses	290	322	412	1,711	2,077	291	481	5,584
Total, Maintenance of Steam and Sailing Vessels	12,507	12,945	13,229	14,530	14,776	19,309	24,658	111,954
Maintenance of District Storehouses, &c.:								
(a) Pay and Allowances of Staff	301	280	279	275	272	260	279	1,946
(b) Coals, Rent and Repairs	351	301	595	312	298	258	255	2,370
(c) Incidental Expenses	154	139	155	135	155	193	209	1,140
Total, Maintenance of District Storehouses, &c	806	720	1,029	722	725	711	743	5,456
Head Office Expenses:								
(a) Salaries and Allowances	3,010	2,639	2,990	3,141	3,263	3,469	3,715	22,227
(b) Office and House Expenses	752	755	657	756	999	902	712	5,533
Total, Head Office Expenses	3,762	3,394	3,647	3,897	4,262	4,371	4,427	27,760
Miscellaneous Expenses:								
(a) Law	21	130	39	44	14	35	240	523
(b) Travelling	1,428	1,411	1,148	1,358	1,151	1,221	1,404	9,121
(c) Experiments	137	60	8	2	64	32	—	303
(d) Removal of Wrecks	28	55	25	1	300	313	185	907
(e) Incidental Expenses	1,036	1,556	1,209	1,359	1,302	1,471	1,246	9,179
Total, Miscellaneous Expenses	2,650	3,212	2,429	2,764	2,831	3,072	3,075	20,033
Superannuation Allowances	3,756	3,691	3,397	3,622	3,985	4,149	4,081	27,181
New Works in Building Lighthouses, &c.	43,421	21,807	16,580	17,562	30,466	35,510	33,662	199,008
Grand Total	96,530	73,140	70,760	70,852	87,537	95,326	100,243	594,433

MERCANTILE MARINE FUND

COMMISSIONERS OF IRISH LIGHTS

DETAILS OF EXPENDITURE under various Headings for the Seven Years ended 31st March, 1899.

	1892-3.	1893-4.	1894-5.	1895-6.	1896-7.	1897-8.	1898-9.	Total.
Maintenance of Lighthouses:	£	£	£	£	£	£	£	£
(a) Pay and Allowances of Staff, including Provisions	11,642	12,134	11,782	11,913	12,714	13,548	13,818	87,551
(b) Oil, Coal and other Stores	6,924	6,045	6,271	6,097	5,849	6,500	6,938	44,624
(c) Repairs and Renewals	3,756	4,394	4,789	4,839	4,847	4,235	4,474	31,334
(d) Rents	701	709	690	708	782	772	809	5,171
(e) Incidental Expenses	2,893	2,969	2,896	2,997	2,909	2,968	2,899	20,531
Total, Maintenance of Lighthouses	25,916	26,251	26,428	26,554	27,101	28,023	28,938	189,211
Maintenance of Lightvessels:								
(a) Pay and Allowances of Staff, including Provisions	9,575	9,646	9,559	9,615	9,593	9,582	9,583	67,153
(b) Oil, Coal and other Stores	2,728	2,303	2,462	2,147	1,603	2,227	1,579	15,049
(c) Repairs and Renewals	5,095	4,204	5,051	6,165	5,930	5,866	7,247	39,558
(d) Incidental Expenses	1,556	1,533	1,514	1,527	2,492	3,947	1,540	14,109
Total, Maintenance of Lightvessels	18,954	17,686	18,586	19,454	19,618	21,622	19,949	135,869
Maintenance of Buoys and Beacons	813	1,500	623	1,937	1,000	1,568	2,080	9,521

Maintenance of Steam and Sailing Vessels:								
(a) Pay and Allowances of Staff, including Provisions	6,843	7,477	7,537	7,727	7,792	7,940	8,052	53,368
(b) Coal and Stores	2,965	3,307	3,540	2,863	2,944	3,293	3,388	22,300
(c) Repairs and Renewals	899	840	1,295	3,068	1,840	2,288	1,832	12,062
(d) Incidental Expenses	1,637	707	207	244	274	246	223	3,538
Total, Maintenance of Steam and Sailing Vessels	12,344	12,331	12,579	13,902	12,850	13,767	13,495	91,268
Maintenance of District Storehouses:								
(a) Pay and Allowances of Staff	2,196	2,137	2,185	2,190	2,094	2,136	2,268	15,206
(b) Coals, Rent and Repairs	83	147	77	143	101	143	136	830
(c) Incidental Expenses	1,194	1,039	1,259	1,548	2,064	2,023	2,145	11,272
Total, Maintenance of District Storehouses	3,473	3,323	3,521	3,881	4,259	4,302	4,549	27,308
Head Office Expenses:								
(a) Salaries	4,873	4,689	4,719	4,808	5,402	5,327	5,464	35,282
(b) Office and House Expenses	1,925	1,949	1,866	1,865	1,834	2,289	2,073	13,801
Total, Head Office Expenses	6,798	6,638	6,585	6,673	7,236	7,616	7,537	49,083
Miscellaneous Expenses:								
(a) Law	—	129	88	222	387	596	—	1,422
(b) Travelling	1,711	1,580	1,340	1,346	1,738	1,514	1,641	10,870
(c) Experiments	8	43	—	4	58	116	—	229
(d) Removal of Wrecks	204	8	24	14	253	224	34	761
(e) Incidental Expenses	307	525	502	540	935	500	525	3,834
Total, Miscellaneous Expenses	2,230	2,285	1,954	2,126	3,371	2,950	2,200	17,116
Superannuation Allowances	3,365	3,511	3,694	3,841	4,125	4,493	4,625	27,654
New Works in Building Lighthouses, &c.	32,184	20,417	7,657	2,462	4,698	14,578	37,027	119,023
Grand Total	106,077	93,942	81,627	80,830	84,258	98,919	120,400	666,053

APPENDIX A.

IX.

Sir T. W. P. Blomefield.

GENERAL LIGHTHOUSE FUND.

COMPARISON OF THE ANNUAL AVERAGE EXPENDITURE FOR THE SEVEN YEARS 1899–1906, WITH THE AVERAGE ANNUAL EXPENDITURE FOR THE PREVIOUS SEVEN YEARS.

SIR THOMAS BLOMEFIELD'S TABLE E.

APPENDIX

Sir T. W. P. Blomefield :
GENERAL LIGHT-

COMPARISON of the AVERAGE ANNUAL EXPENDITURE for the Seven Years ended 31st

	TRINITY HOUSE.		
	Average Annual Expenditure for Seven Years ended 31st March 1899.	Average Annual Expenditure for Seven Years ended 31st March 1906.	Percentage of the Total Increase or *Decrease.*
	£	£	
Maintenance of Lighthouses :			
(*a*) Pay and Allowances of Staff including Provisions	17,062	20,121	8·02
(*b*) Oil, Coal and other Stores	9,387	11,177	4·69
(*c*) Repairs and Renewals	8,981	9,828	2·22
(*d*) Rent	297	334	·09
(*e*) Incidental Expenses	2,417	2,435	·05
Total Maintenance of Lighthouses	38,144	43,895	15·07
Maintenance of Lightvessels :			
(*a*) Pay and Allowances of Staff including Provisions	45,802	46,364	·78
(*b*) Oil, Coal and other Stores	6,829	8,445	2·24
(*c*) Repairs and Renewals	18,992	19,226	·32
(*d*) Incidental Expenses	392	300	*·12*
Total Maintenance of Lightvessels	72,015	74,335	3·22
Maintenance of Buoys and Beacons	7,319	6,968	*4·8*
Maintenance of Steam and Sailing Vessels :			
(*a*) Pay and Allowances of Staff including Provisions	19,983	22,705	7·25
(*b*) Coal and Stores	7,093	8,407	3·5
(*c*) Repairs and Renewals	12,759	16,819	10·81
(*d*) Incidental Expenses	696	574	*·32*
Deduct amount credited for use of Plant, &c. in removing Wrecks	*2,993*	*3,083*	·24
Total Maintenance of Steam and Sailing Vessels	37,538	45,423	21·0
Maintenance of District Storehouses, &c. :			
(*a*) Pay and Allowances of Staff	6,747	6,679	*·49*
(*b*) Coals, Rent and Repairs	5,330	4,727	*4·33*
(*c*) Incidental Expenses	1,837	2,070	1·67
Total Maintenance of District Storehouses, &c.	13,914	13,476	*3·15*
Head Office Expenses :			
(*a*) Salaries and Allowances	17,914	19,110	5·77
(*b*) Office and House Expenses	2,806	2,627	*·86*
Total Head Office Expenses	20,720	21,737	4·91
Miscellaneous Expenses :			
(*a*) Law	274	330	·79
(*b*) Travelling	3,303	3,707	4·28
(*c*) Experiments	524	724	2·12
(*d*) Removal of Wrecks	4,828	5731	9·57
(*e*) Incidental Expenses	512	804	3·1
Total Miscellaneous Expenses	9,431	11,296	19·77
Superannuation Allowances	13,556	15,430	13·8
New Works in Building Lighthouses, &c.	22,702	38,742	69·7
GRAND TOTAL	235,339	271,102	15·19
GRAND TOTAL (excluding New Works)	212,637	232,560	9·37

A.—IX.

Table E.

HOUSE FUND.

March, 1906, with the AVERAGE ANNUAL EXPENDITURE for the previous Seven Years.

IRISH LIGHTHOUSES.			NORTHERN LIGHTHOUSES.		
Average Annual Expenditure for Seven Years ended 31st March, 1899.	Average Annual Expenditure for Seven Years ended 31st March, 1906.	Percentage of the Total Increase or *Decrease.*	Average Annual Expenditure for Seven Years ended 31st March, 1899.	Average Annual Expenditure for Seven Years ended 31st March, 1906.	Percentage of the Total Increase or *Decrease.*
£	£		£	£	
12,507	15,414	10·75	13,571	16,654	11·97
6,375	7,172	2·95	4,051	6,066	7·83
4,476	6,639	7·96	4,244	4,771	2·04
739	899	·59	737	806	·27
2,933	3,001	·25	3,139	3,273	·52
27,030	33,116	22·5	25,742	31,570	22·63
9,593	9,769	·90	894	955	4·65
2,150	1,814	*1·73*	87	104	1·29
5,651	5,616	*·18*	321	349	2·13
2,015	1,597	*2·15*	10	11	·08
19,409	18,796	*3·16*	1,312	1,419	8·15
1,360	1,828	34·4	1,952	2,207	13·6
7,624	8,044	5·22	7,888	9,633	10·91
3,186	4,099	7·0	2,207	3,760	9·71
1,723	2,299	4·42	5,100	4,639	*2·88*
505	763	1·98	798	596	*1·26*
13,038	15,205	16·62	15,993	18,628	16·48
2,172	2,321	3·82	278	304	3·33
119	230	2·84	338	322	*2·05*
1,610	1,491	*3·05*	163	194	3·98
3,901	4,042	3·61	779	820	5·26
5,040	5,498	6·53	3,175	5,935	69·61
1,971	2,193	3·16	790	900	2·77
7,011	7,691	9·69	8,965	6,835	72·38
203	218	·61	75	237	5·66
1,553	2,024	19·26	1,303	1,421	4·12
33	122	3·64	43	41	*·07*
109	62	*1·92*	130	42	*3·07*
547	673	5·15	1,311	867	*15·51*
2,445	3,099	26·74	2,862	2,608	*8·87*
3,950	6,700	69·6	4,169	4,643	11·37
17,003	26,912	58·2	28,430	23,912	*15·89*
95,147	117,389	23·38	85,204	92,642	8·73
78,144	90,477	15·78	56,774	68,730	21·06

APPENDIX B.

RETURNS PREPARED BY THE THREE GENERAL LIGHTHOUSE AUTHORITIES.

APPENDIX B.

I.

Mr. A. Owen (Trinity House).

RETURN OF THE NAMES, AGES, OCCUPATIONS AND DATES OF APPOINTMENT OF THE PRESENT ACTING MEMBERS OF THE CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND IN NOVEMBER 1906.

APPENDIX B.—I.

RETURN of the Names, Ages, Occupations and Dates of Appointment of the present Acting Members of the Corporation of Trinity House of Deptford Strond in November, 1906, distinguishing those who have been in Command of Vessels in the Royal Navy or Merchant Service, and the Dates when they retired from those Services, and showing also the Committees of the Corporation to which they are attached for General Lighthouse Fund purposes.

Name.	Age in November, 1906.	Occupation when Elected.	Date of Election.	Year of Retirement from Sea Service.	Committee of the Corporation to which attached in November, 1906.
Captain Sir George Rawlinson Vyvyan, K.C.M.G. (Deputy Master).	68	A retired Commander in the Merchant Service, and recently a Nautical Surveyor under the Board of Trade.	12th June, 1883.	1877	Chairman of the Board and of all the Committees.
Admiral Sir Francis Leopold M'Clintock, K.C.B., F.R.S.	87	Admiral in the Royal Navy.	13th February, 1884.	1884	Warden.
Captain Arthur Edward Barlow.	71	A Commander in the Merchant Service	7th October, 1884.	1884	Warden.
Rear-Admiral Hector Brabazon Stewart.	64	A Captain in the Royal Navy; Inspector of Warlike Stores from 1888 to 1890.	15th July, 1890.	1888	Warden, also Audit Committee.
Captain Adolphus Edmund Bell.	56	A Commander in the Merchant Service.	7th May, 1895.	1895	Light Committee.
Captain Anthony Standidge Thomson, C.B.	55	A Commander in the Merchant Service, and Navigating Officer in the Telegraph Service.	15th November, 1898.	1898	Examining Committeee.
Captain Arthur Wellesley Clarke.	49	A Commander in the Merchant Service.	13th December, 1898.	1899	Examining Committee.
Captain Robert Hoare -	52	A Commander in the Merchant Service.	6th June, 1899.	1899	Light Committee.
Captain Herbert Acton Blake.	49	A Commander in the Merchant Service.	2nd January, 1900.	1900	Light Committee.
Captain Laurence Hugh Crawford, C.B.	50	A retired Commander in the Merchant Service, and Nautical Inspector of the Peninsular and Oriental S.N. Coy.	16th February, 1904.	1900	Examining Committee.
Captain Oswald Percival Marshall.	49	A Commander in the Merchant Service.	2nd May, 1905.	1905	Examining Committee and Audit Committee.
Captain Thomas Golding	46	A Commander in the Merchant Service.	17th October, 1905.	1905	Light Committee and Audit Committee.

One Vacancy, *vice* Captain John Fenwick (died 8th October, 1906).

APPENDIX B.

II.

Mr. A. Owen, Mr. C. Dick Peddie and Mr. H. G. Cook.

COMPARISON OF THE AVERAGE COST OF ANNUAL MAINTENANCE OF VARIOUS CLASSES OF LIGHTHOUSES.

APPENDIX B.—II.

COMPARISON OF THE AVERAGE COST OF ANNUAL MAINTENANCE OF VARIOUS CLASSES OF LIGHTHOUSES.

Returns put in by the Three General Lighthouse Authorities.

	Wages and Allowances.	Stores and Fuel.	Repairs and Maintenance.	Incidentals.	Total.
	£	£	£	£	£
Shore Lighthouse, with 2 Keepers :—					
Trinity House	152	87	31	12	282
Northern Lights	160	54	38	25	277
Irish Lights	143	72	22	17	254
Shore Lighthouse, with Siren Fog Signal and 3 Keepers :—					
Trinity House	215	141	97	35	488
Northern Lights	238	103	63	40	444
Irish Lights	220	86	26	68	400
Rock Lighthouse, with Explosive Fog Signal and 4 Keepers (3 always at Lighthouse) :—					
Trinity House	452	202*	58	38	750
Northern Lights	400	260*	45	37	742
Irish Lights	374	132*	39	253†	79
Electric Light Station, with Siren Fog Signal, having Engineer in charge and 4 Keepers :—					
Trinity House	456	413	173	31	1,073
Northern Lights	530	440	110	51	1,131
Irish Lights	—	Have no Electric Light Station.			—

* Including explosives for fog-signals.
† Including rent, £8, and boat-hire. £232
§ The Northern Lighthouse Board has six keepers at its one electric light station. The fact of its being an island station greatly increases the cost of maintenance.

APPENDIX B.

III.

Mr. A. Owen, Mr. C. Dick Peddie and Mr. H. G. Cook.

COMPARISON OF THE AVERAGE COST OF ANNUAL MAINTENANCE OF A LIGHTVESSEL.

APPENDIX B.—III.

COMPARISON OF THE AVERAGE COST OF ANNUAL MAINTENANCE OF A LIGHTVESSEL.

Returns put in by the Three General Lighthouse Authorities.

	Trinity House.	Northern Lights.	Irish Lights.
	£	£	£
Wages and Allowances	1,020	966	990
Coal, Oil and Stores	205	103	160
General Maintenance	93	146	193
TOTAL*	1,318	1,215	1,343

* The cost of the periodical overhaul is not included in the case of any of the Boards.

APPENDIX B.

IV.

Mr. A. Owen, Mr. C. Dick Peddie and Mr. H. G. Cook.

COMPARISON OF THE AVERAGE COST OF ANNUAL MAINTENANCE OF TWO STEAM VESSELS.

APPENDIX B.—IV.

COMPARISON OF THE AVERAGE COST OF ANNUAL MAINTENANCE OF TWO STEAM VESSELS.

Returns put in by the Three General Lighthouse Authorities.

	Trinity House.		Northern Lights.		Irish Lights.	
	"Irene."	"Vestal."	"Pharos."	"Hesperus."	"Alexandra."	"Tearaght."
Gross Tonnage - - - -	524	576	524	583	618	621
Annual Maintenance:						
(*a*) *Wages* (including victualling, clothing, allowances, etc.) - -	£ 3,814	£ 3,381	£ 3,182	£ 2,826	£ 3,554	£ 3,046
(*b*) *Coal and Stores* - -	1,213	995	909	1,415	2,356	1,554
(*c*) *General Maintenance*, including repairs -	4,022	1,593	1,317	1,475	872	987
TOTAL - -	9,049	5,969	5,408	5,716	6,782	5,587

APPENDIX B.

V.

Mr. A. Owen, Mr. C. Dick Peddie and Mr. H. G. Cook.

NATURE AND COST OF EXPERIMENTS CARRIED OUT DURING THE YEARS 1901–1906 BY THE THREE GENERAL LIGHT-HOUSE AUTHORITIES.

APPENDIX B.—V.

NATURE and COST of EXPERIMENTS carried out during the Years 1901-1906 by the THREE GENERAL LIGHTHOUSE AUTHORITIES.

Year.	Trinity House.†		Northern Lighthouse Board.†		Irish Lights Board.	
	Nature.	Cost.	Nature.	Cost.	Nature.	Cost.
		£		£		£
1901-2	Wigham Oil Buoy (purchase of). Oil and Gas Burners Experimental installation of Incandescent Oil Burner at Lowestoft.	923			Experiment House at Kingstown. (Continued 1903-4)	31
					Incandescent Oil and Gas Burners, and Oil Gas Apparatus at Kingstown and Howth Bailey. (Continued 1903-4).	268
	An exhaustive series of experiments with various descriptions of Fog-signalling Apparatus at St. Catherine's.	1,750	Testing the efficiency of various forms of fog-signals at St. Catherine's	176	Experiments to ascertain whether a buoy could be maintained in 80 fathoms of water off Highland Rock, including loss of moorings and salvage of buoy. (Continued in the following year.)	387
1902-3	Fog-signal Experiments at Nash. Oil and Gas Burners Sirens and Motors for same	640	Testing the relative efficiency of the Siren and the Diaphone at Girdleness.	*	Experiments with Fog-signals on Rathlin Island in order to find best site for Signal.	99
			Testing different makes of incandescent oil burners.	* 10		
			Ascertaining loss of light from incandescent and ordinary oil burners, shining through red glass.			
1903-4	Fog-signal Experiments at Skerries. Gas Buoy Lanterns Oil and Gas Burners	247	Testing Reavell's Air Compressor for Fog-signal purposes.	—	Siren Experiment on "Seagull" Lightship.	52
			Devising a fusible safety plug for preventing damage by fire at unwatched lights.	10		
1904-5	Fog-signal Experiments at Flatholm. Fog-signal Experiments at Strumble Head. Oil and Gas Burners	266	Testing various oils for unwatched lights.	*	Experiments on methods of welding buoys by J. Thompson.	22
			Lieut. Lee's application of Marconi's Wireless Telegraphy to signalling over defined arc during fog.	52		
			Silenium apparatus for automatically turning up and down the light on unattended Gas Beacons and Buoys.	*		
			Applying Air Motors to the automatic winding of the clockwork of revolving optical apparatus.	*		
			Heliographic signalling from and to Rock Lighthouses.	5		
1905-6	Submarine Signalling Rolled Steel Weldless Chain (purchase of). Gunpowder and Aluminium Charges for use at North Stack. Oil and Gas Burners	426	Submarine sound signalling by means of a Bell.	—	Experiments with Grubb Reflectors.	66
			Testing Dissolved Acetylene Apparatus for lighting Buoys and Beacons.	*		
			Regulating Air Supply in Incandescent Oil Burners.	—		

† In addition to these experiments shown, minor experiments in connection with the lights and fog signals are constantly in progress.

* Denotes that the experiments have been conducted wholly or in part at the expense of the inventor or maker of the apparatus. Where the cost is left blank, the experiments have been conducted by the Commissioners' own staff, and the expenses not allocated.

APPENDIX B.

VI.

Mr. A. Owen, Mr. C. Dick Peddie and Mr. H. G. Cook.

NAMES AND DESCRIPTIONS OF ALL LIGHTHOUSES MAINTAINED OUT OF THE GENERAL LIGHTHOUSE FUND AND CHARGED TO ABSTRACT A OF THE ACCOUNTS OF THE THREE GENERAL LIGHTHOUSE AUTHORITIES, 1907.

APPENDIX B.—VI.

NAMES AND DESCRIPTIONS OF ALL LIGHTHOUSES MAINTAINED OUT OF GENERAL LIGHTHOUSE FUND, AND CHARGED TO ABSTRACT A OF THE ACCOUNTS OF THE THREE GENERAL LIGHTHOUSE AUTHORITIES, 1907.

TRINITY HOUSE.

Description.	If Fog Signal.	Name of Station.	Number of Lightkeepers.	How Relieved or Attended.		Character and Power (in units of 1,000 candles of light).	Illuminant.	Description of Fog Signal.
				Method.	Interval.			
Rock	F.S.	Outer Fern	3 at lighthouse; 1 ashore	Hired sailing tender	Twice a month	D. Rev. 206 W.	Incan. oil	Sirens, 2—5″.
,,	F.S.	Gunfleet	3 ,, 1 ,,	T.H. steamer	Monthly	C. Rev. R. $4\frac{1}{2}$	Oil	Bell, 7 cwt.
,,	F.S.	Maplin	2 ,, 1 ,,	,,	,,	D. Occ. {W. 11 / R. $4\frac{1}{2}$} W. Sub. C.F. $2\frac{1}{2}$	Incan. oil / Oil	Bell, 7 cwt.
,,	F.S.	Chapman	2 ,, 1 ,,	,,	,,	D. Occ. {W. 8 / R. $3\frac{1}{2}$}	Incan. oil	Bell, 3 cwt.
,,	F.S.	Beachy Head	2 ,, 1 ,,	,,	,,	D. Gp. Fl. $27\frac{1}{4}$ W.	,,	Jib explosive.
,,	F.S.	Needles	2 ,, 1 ,,	,,	,,	D. Occ. {W. 35 / R. 35 and R. 14 / G. $8\frac{1}{4}$}	,,	Reed horn (3 reeds).
,,	F.S.	Caskets	3 ,, 1 ,,	Hired boat	,,	D. Gp. Fl. $183\frac{3}{4}$ W.	,,	Siren, 7″.
,,	F.S.	Hanois	2 ,, 1 ,,	,,	Twice a month, from 1st February to 1st November, and monthly for remainder of year.	D. Rev. $74\frac{1}{2}$ W.	,,	Bell, 7 cwt.
,,	F.S.	Plymouth Breakwater	2 ,, 1 ,,	Hired steamer	Monthly	D. Main Occ. R. $5\frac{1}{2}$ and W. $12\frac{3}{4}$ / D. Subs. F. 3 W.	Oil	Bell, 35 cwt.
,,	F.S.	Eddystone	3 ,, 1 ,,	,,	,,	D. Gp. Fl. $29\frac{1}{2}$ W. / Sub. C.F. 8 W.	Incan. oil / Oil	Jib explosive.
,,	F.S.	Longships	3 ,, 1 ,,	Hired boat	Twice a month	D. Occ. 35 W. and R.	Incan. oil	Jib explosive.
,,	F.S.	Wolf	3 ,, 1 ,,	T.H. steamer	Monthly	D. Gp. Fl. $70\frac{1}{2}$ W. and R.	,,	Reed horn.
,,	—	Round Island	2 ,, 1 ,,	Hired boat	,,	D. Fl. 415 R.	,,	—
,,	F.S.	Bishop Rock	3 ,, 1 ,,	,,	,,	D. Gp. Fl. $622\frac{3}{4}$ W.	,,	Jib explosive.
,,	F.S.	Godrevy	2 ,, 1 ,,	,,	,,	D. Fl. Main 68 W. / C. F. Sub. $3\frac{1}{4}$ R.	Oil	Bell, 3 cwt.
,,	F.S.	Lundy North	3 ,, 1 ,,	T.H. steamer	,,	D. Gp. Fl. $374\frac{1}{4}$ W.	Incan. oil	Sirens, 2—5″.
,,	F.S.	Lundy South	2 ,, 1 ,,	,,	,,	D. Rev. 206 W.	,,	Explosive.
,,	—	Monkstone	Unwatched beacon light on isolated rock	,,	As necessary	D. Occ. $\frac{51}{10}$ W.	Compressed gas	—
,,	F.S.	Smalls	3 at lighthouse; 1 ashore	,,	Monthly	D. Gp. Fl. $47\frac{1}{2}$ W. / Sub. D.F. $11\frac{1}{4}$ R.	Incan. oil / ,,	Jib explosive.
,,	F.S.	South Bishop	3 ,, 1 ,,	,,	,,	D. Rev. $128\frac{3}{4}$ W.	,,	Siren, 5″.
,,	—	St. Tudwals	2 ,, 1 ,,	Hired boat	,,	D. Occ. {W. $12\frac{3}{4}$ and $14\frac{1}{2}$ / R. 7 and 5 / Sub. C.F. 2 R.}	Incan. oil / Oil	—
,,	F.S.	Holyhead Breakwater	2 ,, 1 ,,	Keepers walk ashore	Weekly	D. Fl. 31 R.	Incan. oil	Bell, 5 cwt.
,,	F.S.	Skerries	3 ,, 1 ,,	T.H. steamer	Twice a month	Main D. Gp. Fl. $27\frac{1}{4}$ W. / Subs. D. F. $4\frac{3}{4}$ R.	,, / ,,	Sirens, 2—5″.
Total Rock, 23	—	—	—	—	—	—	—	—

* Island		Inner Fern, High Inner Fern, Low	2	Hired boat	One month	C., Gp., Fl. W. 7¼ R. 5⅜ C., F. W 4¾	Oil.	
,,	F.S.	Coquet	3	T.H. boat with hired crew.	When necessary	(H.), D., Occ. W. and R. 35 (L.), C., F. W. 4 R. 3¼	Incan. oil Oil	Jib Explosive.
,,	—	S. Mary	2	Hired boat; at certain states of the tide keepers can walk ashore.	When necessary	D., Gp., Fl. W. 374¼	Incan. oil.	
,,	—	S. Agnes, Scilly	2	District steamer	When necessary	C., Rev. W. 25½	Oil.	
,,	—	Flatholm	2	District steamer	When necessary	D., Gp., Occ. W. 35 R. 14	Incan. oil	Siren intended in 1908.
,,	—	Caldy	2	Hired steamer	When necessary	D., Gp., Occ. W. 35 R. 14	Incan. oil.	
,,	F.S.	Bardsey	3	Hired boat	Twice monthly	D., Occ. W. 35	Incan. oil.	Siren, two 5″.
Total Island, 7.		—	—	—	—	—	—	—
Shore	F.S.	Souter Point	4 Keepers and 1 Engineer	—	—	D., Fl., undetermined, W., C.P. Sub., F., W. and R.	Electricity	Sirens, 2–5″
,,	F.S.	Whitby	3	—	—	Occ., 35 W. and R.	Incan. Oil	,, ,,
,,	F.S.	Flambro'	3	—	—	D., Gp., Fl., 115¾ W. and R.	,, ,,	Sound Rocket. Siren intended, 1908.

* Double station.

Abbreviations:—C., Catoptric; D., Dioptric; C.D., Catadioptric; F., Fixed; Fl., Flashing; Rev., Revolving; Occ., Occulting; F.S., Fog-signal; W., White; R., Red; Gp., Group.

TRINITY HOUSE—*continued.*

Description.	If Fog Signal.	Name of Station.	Number of Lightkeepers.	How Relieved or Attended.		Character and Power (in units of 1,000 candles of light).	Illuminant.	Description of Fog Signal.
				Method.	Interval.			
Shore	—	Withernsea	2	—	—	D., Gp., Occ., 46¾ W.	Incan. Oil	—
„	—	Spurn	2	—	—	High D., Fl., 519¾ W. 3 Sub., Lts.: C., F., W. 8 C., F., R. 4¾ C., F., W. 12	„ „ Oil	— —
„	—	Hunstanton	2	—	—	D., Gp., Occ., W. 12¾ R. 14¾	Incan. Oil	—
„	—	Cromer	2	—	—	C., Rev., 49 W.	„ Gas	—
„	—	Haisbro'	2	—	—	D., Occ., 35 W.	„ Oil	—
„	—	Winterton	2	—	—	D., F., 35 W.	„ „	—
„	—	Caister	Unwatched Light	—	—	High, C., F., 5½ R. Low, C., F., 5½ R.	„ Gas	—
* „	—	Lowestoft High	3	—	—	D., Rev., 274½ W. Sub., C., F., 2 R.	„ Oil Oil	— —
	F.S.	Lowestoft Low	3	—	—	D., Occ., W. 4¾ R. 2	Incan. Gas	Reed Horn.
„	—	Southwold	2	—	—	D., Gp., Occ., W. 35 R. 45–29¾	„ Oil	—
„	—	Orford	2	—	—	Main, D., Occ., W. 35 R. 35 G. 17½ Subs.: C., F., 8 W. D., F., 9 W.	„ „ „ „ „ „ Incan. Gas	— — — —
* „	—	Dovercourt High Dovercourt Low	3	—	—	C., F., 9 W.	„ „	—

„	—	Landguard	2 (1 being Keeper's wife)	—	—	W. ½ / D., F., R. ¼	Oil	—
„	F.S.	Mucking	2	—	—	W. 10¾ / D., Occ., R. 4½	Incan. Oil	Bell, 3 cwt.
„	—	Northfleet	Attendant	—	—	D., Occ. W. 2¼ / R. 1	„ Gas	—
„	—	Tilburyness	1 Attendant for the 7	—	—	D., Fl., ¼ W.	Gas	—
		Broadness				D., Fl., ¼ W.	„	—
		Stoneness				D., Occ., under $\frac{1}{10}$ W.	Lythene	—
		Coldharbour Point				„ „	„	—
		Jenningtree Point				„ „	„	—
		Crossness				„ „	„	—
		Tripcock Point				„ „	„	—
„	—	North Foreland	2	—	—	D., Occ., 35 W.	Incan. Oil	—
„	—	South Foreland	4 Keepers and 1 Engineer	—	—	(W.) D., Fl., undetermined C. P.	Electricity	—
* „	—	Dungeness High	4	—	—	D., Fl., W. 164 / Sub., D., F., R. 65 / R. 13 / G. 40½ / D., Fl., W. 11	Incan. oil	Sirens, 2–5″
„	F.S.	Dungeness Low						
„	—	Egypt	Unwatched Light	—	—	D., F., W. $\frac{1}{10}$	Incan. (propd.) gas.	—
„	F.S.	St. Catherines	4 and 1 Engineer	—	—	D., Fl., undetermined, C.P. W. / Sub., D., F., „ „ R.	Electricity	Sirens, 2–5″
* „	—	Hurst High	3	—	—	D., F., W. W. 7 / D., Occ., W. and R. R. 7 / C., F., 8 W.	Oil	—
		Hurst Low						
„	F.S.	Anvil Point	2	—	—	D., Fl., 145¼ W.	Incan. oil	Jib explosive.
„	—	Portland Bill	2	—	—	D., Gp., Fl., W. 255¾ / Sub., D., F., R. 11	Incan. oil	—
„	—	Berry Head	Attendant	—	—	D., Gp., Fl., 15 W.	Incan. gas	—
„	F.S	Start	3	—	—	D., Fl., 274¼ W. / Sub., D., F., 1¾ W.	Incan. oil	Sirens, 2–5″

* Double Station. Abbreviations:—C., Catoptric; D., Dioptric; C.D., Catadioptric; F., Fixed; Fl., Flashing; Rev., Revolving; Occ., Occulting; F.S., Fog-signal; W., White; R. Red; G., Green; Gp., Group.

TRINITY HOUSE—*continued.*

Description.	If Fog Signal.	Name of Station.	Number of Lightkeepers.	How Relieved or Attended.		Character and Power (in units of 1,000 candles of light.)	Illuminant.	Description of Fog Signal.
				Method.	Interval.			
Shore	F.S.	Penlee Point Fog Signal Station	2	—	—	No Light	—	Reed Horn (2 reeds).
* „	F.S.	St. Anthony High St. Anthony Low	2	—	—	C., Fl., 20 W. C., F., 16 W.	Oil	Bell, 40 cwt.
„	F.S.	Lizard	4 and 1 Engineer	—	—	D., Fl., undetermined, C.P., W.	Electricity	Sirens, 2–5″
„	F.S.	Pendeen	3	—	—	D., Gp., Fl., 190½ W.	Incan. oil	Sirens, 2–5″
„	—	Trevose	2	—	—	D., Gp., Occ., 35 W.	Incan. oil	—
„	F.S.	Hartland	3	—	—	D., Fl., 115¾ W. and R.	Incan. oil	Siren, 4″
* „	—	Bideford High Bideford Low	2	—	—	D., Occ., W. 3¾ W. 1½ C., F., R. ½	Oil.	—
„	F.S.	Bull Point	3	—	—	D., Gp., Fl., W. 182 Sub., D., F., R. 1½	Incan. oil	Siren, 6″
„	F.S.	The Foreland	2	—	—	D., Gp., Fl., 190 W.	Incan. oil	Jib explosive.
* „	—	Burnham High Burnham Low	2, one being Keeper's wife	—	—	D., Gp., Fl., W. 10¾ D., F., R. 1, W. 2¼	Incan. gas	—
„	—	Blacknore Point	Attendant	—	—	D., Gp., Occ., W. 1	Incan. gas	—
„	—	Usk West	2	—	—	D., Gp., Occ. W. 12¾ R. 5	Incan. oil	—
„	—	Usk East	Attendant	—	—	D., Occ. W. ¾ R. ¼ G. ¼	Oil (carbon wick)	—
„	—	Nash East	4	—	—	D., F. W. 35 R. 35	Incan. oil	—
* „	F.S.	„ West				D., F. W. 35 R. 35	„ „	Sirens –5

* „	—	St. Ann's, High	5	—	—	D., F. {W. 35 R. 14}	„ „	—
* „	F.S.	„ Low				D., F., 35 W.	„ „	Sirens 2–5
* „	—	Gt. Castle, High	2	—	—	C., F., 7½ W.	Oil	—
		„ Low				C., F., 7½ W.	„	—
„	F.S.	South Stack	3	—	—	D., Rev., 274½ W.	Incan. oil	Reed Horn (2 reeds)
„	F.S.	North Stack Fog Gun Station.	2	—	—	No Light	—	Fog, gun and Jib explosive alternately.
„	F.S.	Menai	2	—	—	D., Gp., Occ., 15 W.	Incan. oil	Bell, 7 cwt.
„	F.S.	St. Bees	2	—	—	D., Gp., Occ., 35 W.	„ „	Jib explosive.
„	F.S.	Gibraltar	3	—	—	D., Occ., W. 35, Red Sector 35	„ „	„
Total Shore 55		—		—	—	—	—	—

* Double Station. Abbreviations:—C., Catoptric; D., Dioptric; C.D., Catadioptic; F., Fixed; Fl., Flashing; Rev., Revolving; Occ., Occulting; F.S., Fog-signal; W., White; R., Red; Gp., Group.

ABSTRACT.

Rock Lighthouses	23 (of which one unwatched).
Island „	7
Shore „	53 (of which 11 minor lights and 2 unwatched lights).
Stations for Fog-signals only	2
TOTAL STATIONS	85
Fog-signals	45 (including the 2 separate fog-signals mentioned above).

Note.—The difference between the number of keepers shown in this return (215) and that given on page 8 of the Report (237) is due to the fact that the latter number includes supernumerary keepers and keepers lent for Admiralty lights.

NAMES AND DESCRIPTIONS OF ALL LIGHTHOUSES MAINTAINED
OUT OF GENERAL LIGHTHOUSE FUND AND CHARGED TO ABSTRACT A OF THE ACCOUNTS, 1907

NORTHERN LIGHTHOUSES.

NOTE.—At *Rock* Stations the Lightkeepers are relieved periodically in turn, their families living on shore or elsewhere.
Island Stations are situated on islands on which there are no or few other inhabitants than the Lightkeepers and their families, special attendance being necessary by Lighthouse tender or boat.
Shore Stations include all stations which are not Rock or Island, whether situated on the mainland or not.

Description.	If Fog Signal.	Name of Station.	Number of Lightkeepers.	How Relieved and Attended.		Character and Power (in units of 1,000 candles) of light.	Illuminant.	Description of Fog Signal.
				Method.	Interval.			
Rock	F.S.	Bass Rock	3 on rock; 1 ashore	Tender	Fortnightly	D., Fl., 156 W.	Incan. oil	Siren 7″
,,	F.S.	Bell Rock	3 ,, 1 ,,	,,	,,	D., Rev., 392 W.	,, ,,	Tonite explosion.
,,	F.S.	Rattrayhead	3 ,, 1 ,,	Boat	Weekly	D., Fl., 156 W.	,, ,,	Siren 6″
,,	—	Walsey Skerries	2 ,, 1 ,,	,,	Fortnightly	D., Rev., 159 W.	,, ,,	—
(Island)	—	Walsey Skerries (Shore Stations)	—	Trading steamers subsidised by Commissioners	—	—	—	—
,,	—	North Unst	3 ,, 1 ,,	Boat	Fortnightly	D., F., 15 and 5 R.	Incan. oil	—
,,	—	Sule Skerry	3 ,, 1 ,,	Tender	,,	D., Fl., 378 W.	,, ,,	—
,,	—	Flannen Islands	3 ,, 1 ,,	,,	,,	D., Fl., 434 W.	,, ,,	—
,,	—	Hyskeir	3 ,, 1 ,,	,,	,,	D., Fl., 597 W.	,, ,,	—
,,	F.S.	Skerryvore	3 ,, 1 ,,	,,	,,	D., Rev., 186 W.	,, ,,	Tonite explosive.
,,	—	Dhuheartach	3 ,, 1 ,,	,,	,,	D., F., and Occ., 27 W.	,, ,,	—
,,	F.S.	Skervuile	2 ,, 1 ,,	Boat	,,	CD., Rev., 3½ W.	Oil	Tonite explosive.
,,	F.S.	Chickens Rock	3 ,, 1 ,,	,,	,,	D., Rev., 173 W.	Incan. oil	,, ,,
Total Rock	12	—	—	—	—	—	—	—

Island	F.S.	Inchkeith	3	Tender	Fortnightly	D., Rev., 167 W.	Incan. oil	Siren 7″
,,	—	Fidra	2	Tender	Fortnightly	C , Fl., 1¼ W.	Oil.	
,,	F.S.	Isle of May	7	Tender	Fortnightly	D., Fl., very powerful W.	Electricity	Siren 6
,,	F.S.	Pentland Skerries	3	Boat	Three times a month	D., Fl., 27 W.	Incan. oil	Siren 7″
,,	—	Hellyar Holm	2	Boat	Weekly	D., F., and Fl., 8½ W., 2¾ R.	Incan. oil	
,,	—	Anskerry	2	Tender and Boat	Fortnightly	D., F., 24 W.	Incan. oil.	
,,	F.S.	Fair Isle S.	4	Tender	Quarterly	D., Fl., 164 W.	Incan. oil	Siren 6″
,	F.S.	Fair Isle N.	3	Tender	Quarterly	D., Fl., 339 W.	Incan. oil	Siren 6
,,	—	Monach	2	Boat	Fortnightly	D., Fl., 173 W.	Incan. oil.	
,,	—	Barrahead	3	Boat	Weekly in summer, fortnightly in winter.	D., Occ., 39 W.	Incan. oil.	
,,	—	Rona	2	Boat	Quarterly, with 4 extra trips in summer.	C.D., Fl., 6 W.	Oil.	
,,	—	Kyleakin	1	Boat	Twice daily	D., F., 1¾ W., ½ R. and 3½ R.	Incan. gas.	
,,	—	Lismore	2	Tender	Fortnightly	C., F., 1¼ W.	Oil.	
,,	—	Fladda	2	Boat	Weekly	D., F., 8¼ W., ¼ R. and 2¼ R.	Oil.	
,,	—	Rhuvaal	2	Boat	Weekly	D., F., 11½ and 3¾ R.	Incan. oil.	
,,	—	McArthur's Head	2	Boat	Weekly	D., F., 8½ and 13¼ W., 1½ R., 22¼ R.	Incan. oil.	
,,	F.S.	Rhinns of Islay	3	Boat	Twice daily	D., Fl., 233 W.	Incan. oil	Siren 7″
,,	F.S.	Sanda	3	Boat	Fortnightly	D., Fl., 61, 20 R.	Incan. oil	Disc siren.
,,	F.S.	Pladda	3	Boat	Fortnightly	D., Fl., 597 W.	Incan. oil	Reed.
,,	F.S.	Holy Island*	4	Boat	Weekly (Inner / Outer)	D., F., 1½ R. / D., Fl., 392, 392 R.	Incan. gas. / Incan. oil	Siren 7″
South end of island / North end of island	F.S. / F.S.	Ailsa Craig	4	Boat	Weekly	D., Fl., 4½ W.	Oil gas	Siren 4¾″ / Siren 4¾″
,,	—	Little Ross	2	Boat	Fortnightly	D., Fl., 138 W.	Incan. oil.	
Total Island	23	—	—	—	—	—	—	—

* Double Station. Abbreviations:—C., Catoptric; D., Dioptric; C.D., Catadioptric; F., Fixed; Fl., Flashing; Rev., Revolving; Occ., Occulting; F.S., Fog-signal; W., White; R., Red.

NORTHERN LIGHTHOUSES—*continued.*

Description.	If Fog Signal.	Name of Station.	Number of Lightkeepers.	How Relieved or Attended.		Character and Power (in units of 1,000 candles) of light.	Illuminant.	Description of Fog Signal.
				Method.	Interval.			
Shore	—	Barnsness	2	—	—	D., Fl., 329 W.	Incan. oil	—
„	F.S.	St. Abb's Head	3	—	—	D., Fl., 173 W.	Incan. oil	Disc siren.
„	—	Montroseness	2	—	—	D., Occ., 23¼ W.	Incan. oil	—
„	F.S.	Tod Head	3	—	—	D., Fl., 160 W.	Incan. oil	Siren 7″
„	F.S.	Girdleness	3	—	—	D., Fl., 114 W.	Incan. oil	Siren 7″
„	F.S.	Buchanness	3	—	—	C., Fl., 6½ W.	Oil	Siren 7″
„	F.S.	Kinnairdhead	3	—	—	D., Fl., 881 W.	Incan. oil	Siren 7″
„	—	Covesea Skerries	2	—	—	D., Rev., 186 W., 74 R.	Incan. oil	—
„	—	Chanonry Point	1	—	—	D., F., 1⅜ W.	Incan. gas	—
„	—	Cromarty	1	—	—	C.D., F., ¼ G., 3½ R., and ½ R.	Incan. gas	—
„	—	Tarbetness	2	—	—	D., Fl., 89 W.	Incan. oil	—
„	F.S.	Nosshead	3	—	—	D., Rev., 93 and 37 R.	Incan. oil	Siren 7″
„	F.S.	Stroma	3	—	—	D., Fl., 156 W.	Incan. oil	Siren 7″
„	—	Cantickhead	2	—	—	C.D., Rev., 6 W.	Oil	—
„	—	Hoy (High)	2	—	—	C.D., F., 1¼ and ⅜ R.	Oil	—
„	—	Hoy (Low)	1	—	—	D., F., 4 W.	Acetylene gas	—
„	—	Noup Head	2	—	—	D., Fl., 156 W.	Incan. oil	—
„	—	Start Point	2	—	—	D., F., ⅜ W.	Oil	—
„	—	North Ronaldshay	2	—	—	D., Fl., 80 W.	Incan. oil	—
„	F.S.	Sumburghead	3	—	—	D., F., 24 W.	Incan. oil	Siren 7″
„	(F.S. proposed)	Bressay	2	—	—	C.D., Rev., 6½ W.	Oil	(Siren proposed.)
„	F.S.	Dunnethead	3	—	—	D., F., 5 W.	Oil	Siren 7″
„	—	Holburnhead	2	—	—	D., Fl., 1⅜ and ⅜ R.	Oil	—
„	F.S.	Cape Wrath	3	—	—	D., Rev., 204 W.	Incan. oil	Siren 7″
„	—	Stourhead	2	—	—	C.D., Occ., 1⅜ W.	Oil	—

Shore	F.S.	Butt of Lewis	3	—	—	D. Fl., 484 W.	Incan. oil	Siren 7″
,,	—	Tiumpanhead	2	—	—	D., Fl., 480 W.	Incan. oil	—
,,	—	Stornoway	2	—	—	C.D., Rev., 3 W.	Oil	—
,,	F.S.	Island Glass	3	—	—	D., Fl., 350 W.	Incan. oil	Siren 7″
,,	—	Ushenish	2	—	—	D., Fl.,.61 W.	Incan. oil	—
,,	—	Oronsay	1	—	–	D., F., 21, 11, 1½ W.	Incan. gas	—
,,	F.S.	Ardnamurchan	2	—	—	D., F., 27¼ W.	Incan. oil	Tonite Explosive.
,,	—	Sound of Mull	1	—	—	D., F., 13 and 1¾ W., 6½ R.,½ R., ½ G.	Incan. gas	—
,,	—	Corran	1	—	—	D., F., 17 and ½ R.	Incan. gas	—
,,	—	Lochindaul	1	—	—	D., F., 6 and 3 R.	Incan. gas	—
,,	F.S.	Mull of Kintyre	3	—	—	D., Fl., 281 W.	Incan. oil	Siren 9″
,,	—	Devaar	2	—	—	C., Rev., 3 W.	Oil	—
,,	—	Turnberry	2	—	—	C.D., Fl., 6 W.	Oil	—
,,	—	Loch Ryan	1	—	—	D., F., 9¼ W.	Incan. gas	
,,	F.S.	Corsewall	3	—	—	D., Rev., 50¾, W. 46½ R.	Incan. oil	Siren 5″
,,	F.S.	Killantringan	3	—	—	D., Fl., 390 W.	Incan. oil	Siren 7″
,,	F.S.	Mull of Galloway	3	—	—	D., Occ., 29¼ W.	Incan. oil	Siren 6″
,,	F.S.	Point of Ayre (2 lights) High / Low	3	—	—	D., Rev., 66 W. / F., ¼ W.	Incan. oil / Oil	Siren 5″
,,	—	Douglashead	2	—	—	D., Fl., 89 W.	Incan. oil	—
,,	F.S.	Langness	3	—	—	C.D., Fl., 9 W.	Oil	Siren 4″
Total Shore	45	—	—	—	—	—	—	—

Abbreviations :—C., Catoptric ; D., Dioptric ; C.D., Catadioptric ; F., Fixed ; Fl., Flashing ; Rev., Revolving ; Occ., Occulting ; F.S., Fog-signal ; W., White ; R., Red ; G., Green.

Note.—The difference between the number of keepers shown in this return (218) and that given on page 9 of the Report (290) is due to the fact that the latter number includes 72 "occasional" keepers.

MINOR LIGHTS CHARGED TO ABSTRACT A.

These lights have no resident keeper, and are unwatched during the night. An attendant (a local man) is appointed for each light, and visits it regularly to replenish oil, &c.

Description.	Name of Station.	Number of Attendant Keepers.	Character and Power (in units of 1000 candles) of light.	Illuminant.
Minor Light - -	Swona - - -	1	D., Fl. 1 W. - - - -	Acetylene gas.
,, ,, - -	HoxaHead - -	1	D., F. $\frac{1}{6}$ and R. $\frac{1}{25}$ - - -	Oil.
,, ,, - -	Cava - - -	1	D., F. $\frac{1}{6}$ and R. $\frac{1}{20}$ - - -	Oil.
,, ,, - -	Clett Tower - -	1	D., F. $\frac{1}{6}$ W., R. $\frac{1}{20}$, and G. $\frac{1}{30}$ -	Oil.
,, ,, - -	Stronsay - -	1	D., Fl. 1 W. - - - -	Acetylene gas.
,, ,, - -	Rova Head - -	1	D., F. $\frac{1}{2}$ W., R. $\frac{1}{7}$, and G. $\frac{1}{10}$ -	Acetylene gas.
,, ,, - -	Mull of Eswick -	1	D., Fl. $\frac{1}{6}$ W., R. $\frac{1}{20}$, and G. $\frac{1}{60}$ -	Oil.
,, ,, - -	Symbisterness -	1	D., F. $\frac{1}{2}$ and R. $\frac{1}{8}$ - - -	Acetylene gas.
,, ,, - -	Sutherness - -	1	D., F. $\frac{1}{6}$ W., R. $\frac{1}{10}$, and G. $\frac{1}{60}$ -	Oil.
,, ,, - -	Kyle Rhea - -	1	D., F. $\frac{11}{10}$ W., R. $\frac{1}{4}$, and G. $\frac{1}{5}$ -	Oil.
,, ,, - -	Heston Island -	1	D., Fl. $\frac{1}{6}$ and R. $\frac{1}{30}$ - - -	Oil.
Total Minor Lights - -	11	—	—	—

Abbreviation—C., Catoptric; D., Dioptric; C.D., Catadioptric; F., Fixed; Fl., Flashing; Rev., Revolving; Occ., Occulting; F.S., Fog-signal; W., White; R., Red; G., Green.

ABSTRACT.

Rock Lighthouses - - - - -	12
Island ,, - - - - - -	23
Shore ,, - - - - - -	45
Minor Lights - - - - - -	11
Grand total - - -	91 Lights. / 36 Fog Signals

NAMES AND DESCRIPTIONS OF ALL LIGHTHOUSES
MAINTAINED OUT OF THE GENERAL LIGHTHOUSE FUND, AND CHARGED TO ABSTRACT A OF THE ACCOUNTS, 1907.

IRISH LIGHTS.

Description	If Fog Signal.	Name of Station.	Number of Lightkeepers.	How Relieved or Attended. Method.	How Relieved or Attended. Interval.	Character and Power (in units of 1,000 candles of light).	Illuminant.	Description of Fog Signal.
Rock	F.S.	Tuskar	3 on rock; 1 ashore	Boat	Weekly	D., Rev. {W. 85½ / R. 85½}	Oil	Explosive.
,,	F.S.	Ballycottin	3 ,, 1 ,,	,,	1st and 16th each month	D., Fl. 160	Incan. oil	Bell.
,, (Pile)	F.S.	Spit Bank	1* ,, 1 ,,	,,	Twice daily	D., F. {W. 1 / R. ½}	Oil	,,
,,	F.S.	Fastnet	4 ,, 2 ,,	Tender	Fortnightly	D., Fl. 750	Incan. oil	Explosive.
,,	—	Berehaven	2 ,, 1 ,,	,,	,,	D., Fl. {W. 24 / R. 8½}	,,	—
,,	F.S.	Bull Rock	4 ,, 2 ,,	,,	,,	D., Fl. 333½	Gas	Siren, 6″.
,,	F.S.	Skelligs	3 ,, 1 ,,	,,	,,	D., Gp., Fl. 120	Incan. oil	Explosive intended.
,,	—	Inishtearaght	3 ,, 1 ,,	,,	,,	D., Gp., Fl. 30	Oil	—
,,	—	Beaves Rock	2 ,, 1 ,,	Boat	Twice weekly	D., F. {W. 1¾ / R. ¾}	,,	—
,,	—	Aran Island, North	2 ,,	Steamer and Canoe	Weekly	D., Rev. 200	Incan. oil	—
,,	—	Slyne Head	3 ,, 1 ashore	Boat	Fortnightly	D., F. {W. 12¾ / R. 12¾}	Oil	—
,,	—	Blackrock, Mayo	3 ,, 1 ,,	,,	,,	D., Rev. {W. 200 / R. 80}	Incan. oil	—
,,	—	Eagle Island	3 ,, 1 ,,	,,	,,	D., Occ. {W. 7½ / R. 7½}	Oil	—
,,	—	Sligo (Blackrock)	2 ,,	,,	Twice weekly	D., F. {W. 1½ / R. ½}; Subs. C., F. R. ½	,,	—
,,	—	Rathlin O'Birne	3 ,, 1 ashore	,,	,,	D., Fl. {W. 54½ / R. 21¾}	,,	—
,,	—	Maidens	3 ,, 1 ,,	,,	Fortnightly	D., Gp., Fl. 270; Subs. D., F. ¼	Incan. oil	—
,,	F.S.	Mew Island	4 ,, 2 ,,	,,	Weekly	D., Gp., Fl. 177	Gas	Siren, 6″
,,	F.S.	Carlingford	3 ,, 1 ,,	,,	Twice weekly	D., Occ., 5 9/10; 2 Subs. {C., F. 5¼ / C., F. R. 1}	Oil	Explosive.
(Pile)	—	Vidal Bank	1* ,, 1 ,,	,,	Twice daily; boat at Station.	D., F., 1¾	,,	—
,, ,,	—	Green Island	1* ,, 1 ,,	,,	Twice daily	D., F., 1¾	,,	—
,,	F.S.	Dundalk	2 ,, 1 ,,	,,	Twice weekly	D., Fl. {W. 24 / R. 8½}	Incan. oil	Bell.
,,	—	Rockabill	3 ,, 1 ,,	,,	Three times monthly	D., Fl. {W. 200 / R. 80}	Incan. oil	—
Total Rock - 22	—	—	—	—	—	—	—	—

Abbreviations.—C., Catoptric; D., Dioptric; C.D., Catadioptric; F., Fixed; Fl., Flashing; Rev., Revolving; Occ., Occulting; F.S., Fog-signal; Gp., Group; W., White; R., Red; G., Green.

* Both keepers on duty 1st October to 1st April during night.

IRISH LIGHTS—*continued.*

Description.	If Fog Signal.	Name of Station.	Number of Lightkeepers.	How Relieved or Attended.		Character and Power (in units of 1,000 candles of light).	Illuminant.	Description of Fog Signal.
				Method.	Interval.			
Island	—	Valentia Island	1*	Boats	Twice monthly	C., F., $2\frac{1}{2}$	Oil	—
,,	—	Samphire Island	1*	,,	Weekly	D., F. {W. 1 / R. $\frac{1}{2}$}	,,	—
,,	—	Scattery Island	1*	,,	Twice weekly	D., F. {W. $\frac{1}{4}$ / R. $\frac{1}{10}$}	,,	—
,,	—	Aran Island, South	2	Steamer and Canoe	,, ,,	D., F. {W. $7\frac{1}{2}$ / R. 3}	,,	—
,,	—	Straw Island	1*	,, ,,	,, ,,	D., Occ. $\frac{3}{4}$	,,	—
,,	—	Mutton Island	1*	Boat	,, ,,	D., Occ. {W. 1 / R. $\frac{1}{2}$}	,,	
,,	—	Clare Island	2	,,	Three times weekly	C., F., $2\frac{1}{2}$	,,	—
,,	—	Inishgort	1*	,,	Twice weekly	C., F., $2\frac{1}{2}$	,,	—
,,	—	Oyster Island	2	,,	,, ,,	C. F. {W. $\frac{1}{2}$ / R. $\frac{1}{4}$}	,,	—
,,	—	Killybegs Harbour	1*	,,	Weekly	C., F. {W. $2\frac{1}{2}$ / R. 1}	,,	—
	—	Aranmore	2	,,	,,	D., Rev. {W. $13\frac{3}{4}$ / R. $13\frac{3}{4}$} Subs. C., F. $2\frac{1}{2}$	,,	—
	F.S.	Tory Island	4	,,	,,	D., Gp., Fl. $326\frac{1}{2}$	Gas	Siren 4″.
,,	F.S.	Inishtrahull	4	,,	,,	D., Rev., 200	Incan. oil	,, 6″.
,,	F.S.	Rathlin Island	4	,,	,,	D., Occ. {W. $9\frac{1}{2}$ / R. $3\frac{3}{4}$}	Oil	Gun.
Total Island	14	—	—	—	—	—	—	—

Shore	—	Kingstown, W.	1*	—	—	D., F., R. $\frac{1}{4}$	Oil	—	—
„	F.S.	Kingstown, E.	2	—	—	D., Gp., Fl. 70	Incan. oil	Bell.	
„	—	Wicklow	2	—	—	D., Gp., Fl. 120	„ „	—	
„	F.S.	Hook Tower	4	—	—	D., F. $16\frac{1}{2}$	Gas	Explosive.	
„	—	Duncannon Fort	1*	—	—	C., F. 4 C., F. $\frac{1}{4}$ Subs. C., F. R. $\frac{1}{10}$	Oil	—	
„	—	Duncannon, North	1*	—	—	C., F. 5	„	—	
„	—	Dunmore	1*	—	—	C., F. W. $2\frac{1}{2}$, R. 1	„	—	
„	—	Dungarvan	1*	—	—	D., F. W. $1\frac{3}{4}$, R. $\frac{3}{4}$, G. $\frac{1}{2}$	„	—	
„	—	Mine Head	3	—	—	D., Occ. $21\frac{1}{2}$	Gas	—	
„	—	Youghal	2*†	—	—	D., F. $1\frac{3}{4}$ 2 Subs. C., F., R. 1	Oil	—	
„	F.S.	Poer Head	2	—	—	—	—	Siren 4″	
„	F.S.	Roches Point	3	—	—	D., Occ. W. $3\frac{1}{2}$, R. $1\frac{1}{2}$ Subs. C., F. $3\frac{1}{4}$	„	Siren 5″	
„	—	Charlesfort	1*	—	—	D., F. $5\frac{1}{4}$	„	—	
„	F.S.	Kinsale	4	—	—	D., Gp., Fl. 460	Incan. oil	Explosive.	
„	—	Galley Head	2	—	—	D., Gp., Fl. 315	„ „	—	
„	—	Crookhaven	1*	—	—	D., F. W. $2\frac{3}{4}$, R. $1\frac{1}{2}$	Oil	—	
„	F.S.	Loop Head	3	—	—	D., Occ. $7\frac{1}{2}$	„	Explosive.	
„	—	Kilcredaan	1*	—	—	C., F. W. $2\frac{1}{2}$, R. 1	„	—	
„	—	Tarbert	1*	—	—	D., Occ. W. 2, R. $\frac{3}{4}$	„	—	
„	—	Blacksod	1*	—	—	D., F. W. 2, R. $\frac{3}{4}$	„	—	
„	—	Broadhaven	1*	—	—	D., F. W. $1\frac{3}{4}$, R. $\frac{3}{4}$	„	—	
„	—	Killybegs	2	—	—	C., F. $2\frac{1}{2}$	„	—	
„	—	Lough Swilly	2	—	—	D., Gp., Fl. W. 90, R. 27 Subs. D., F. 8	Incan. oil	—	

* Stations marked thus have female assistants.

† Station marked thus has tide signalman.

Abbreviations.—C., Catoptric; D., Dioptric; C.D., Catadioptric; F., Fixed; Fl., Flashing; Rev., Revolving; Occ., Occulting; F.S., Fog-signal; Gp., Group; W., White; R., Red; G., Green.

IRISH LIGHTS—*continued.*

Description.	If Fog Signal.	Name of Station.	Number of Lightkeepers.	How Relieved or Attended.		Character and Power (in units of 1,000 candles of light).	Illuminant.	Description of Fog Signal.
				Method.	Interval.			
Shore	—	Dunrea	1*	—	—	D., F.	Oil	—
,,	—	Buncrana	1	—	—	D., Fl. {W. 1 / R. ¼}	Acetylene	—
,,	—	Inishowen, W.	1*	—	—	C., F. 8 / Subs. C., F., R. 1	Oil	—
,,	F.S.	Inishowen, E.	3	—	—	C., F. 8	,,	Siren 5″
,,	—	Chaine Tower	Unwatched	—	—	D., Occ. {W. 1½ / R. 1½}	Incan. gas	—
,,	F.S.	Larne	1*	—	—	C., F. {W. 2½ / R. 1}	Oil	Bell, Barr Point.
,,	F.S.	Black Head	3	—	—	D., Fl. 165	Incan. oil	Explosive.
,,	—	Donaghadee	1*	—	—	D., F. {W. 1 / R. ½}	Oil	—
,,	—	Ardglass	1*	—	—	D., F. {W. ½ / R. ⅛}	Oil	—
,,	F.S.	St. John's Point	4	—	—	D., Gp. Fl., 460 / Subs. D., F. {W. 4½ / R. 2}	Incan. Oil / Gas	Siren, 6″. —
,,	—	Carlingford Lough	1*	—	—	C., Rev., 2½	Oil	—
,,	—	Drogheda, N.	1*	—	—	C., F., R., 1½	,,	—
,,	—	Drogheda, E. & W.	1*	—	—	C., F., 6¼ and 7	,,	—
,,	—	Balbriggan	1*	—	—	C., F., {W. 2½ / R. 1 / G. ¾}	,,	—
,,	—	Howth Pier	1*	—	—	C., F. R., 1	,,	—
,,	F.S.	Howth Bailey	4	—	—	D., Fl., 1,200	Incan. Oil	Siren 4″.
Total Shore - 39		—	—	—	—	—	—	—

* Stations marked thus have female assistants.

Abbreviations:—C., Catoptric; D., Dioptric; C.D., Catadioptric; F., Fixed; Fl., Flashing; Rev., Revolving; Occ., Occulting; F.S., Fog Signal; Gp., Group; W., White; R., Red; G., Green.

ABSTRACT.

Rock Lighthouses	22
Island Lighthouses	14
Shore Lighthouses	39
Grand Total	75 Lights. / 23 Fog Signals.

NOTE.—There are also five supernumerary keepers.

APPENDIX C.

MISCELLANEOUS PAPERS.

APPENDIX C.

I.

Mr. A. Norman Hill (Liverpool Steamship Owners' Association).

TABLE SHOWING THE EXPENDITURE OF THE LIGHTHOUSE BOARDS DURING THE SIX YEARS 1900–1905, INCLUSIVE;

THE AVERAGE ANNUAL EXPENDITURE DURING THESE YEARS;

AND THE AVERAGE ANNUAL EXPENDITURE DURING THE PRECEDING SIX YEARS.

APPENDIX C.—I.

[Mr. A. Norman Hill, Secretary to the Liverpool Steamship Owners' Association,

TABLE showing the Expenditure of the Lighthouse Boards during the Six Years, 1900 to 1905 inclusive; the average Annual Expenditure during these years; and the average Annual Expenditure during the preceding Six Years.

TRINITY HOUSE.

	Average Expenditure six years ending 31st March, 1899.	Expenditure for year ending 31st March, 1900.	Expenditure for year ending 31st March, 1901.	Expenditure for year ending 31st March, 1902.	Expenditure for year ending 31st March, 1903.	Expenditure for year ending 31st March, 1904.	Expenditure for year ending 31st March, 1905.	Average Expenditure six years ending 31st March, 1905.	Percentage of increase or *decrease* on the average Expenditure for years 1900 to 1905.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Maintenance of Lighthouses	38,172 7 6	42,637 1 5	42,872 3 2	42,570 17 6	41,532 15 11	45,712 17 7	46,600 15 0	43,654 8 5	14·3
Maintenance of Lightvessels	71,070 8 0	71,019 19 8	67,736 5 5	74,807 9 8	75,348 4 4	76,023 7 3	82,361 5 8	74,547 15 4	4·8
Maintenance of Buoys and Beacons	6,922 4 0	6,273 8 7	6,293 11 6	6,793 8 0	8,243 15 1	7,429 12 0	7,416 1 9	7,074 19 5	2·1
Maintenance of Steam and Sailing Vessels	37,784 19 1	37,704 5 4	48,949 18 3	48,419 4 8	45,607 10 1	48,645 12 1	44,141 8 7	45,577 19 10	20·6
Maintenance of District Storehouses, &c.	14,161 0 9	13,982 19 9	13,575 11 1	14,487 7 6	13,774 17 7	15,699 11 7	13,186 6 1	14,117 15 7	·3
Head Office Expenses	20,601 5 10	21,077 1 9	21,327 1 11	21,735 16 6	23,646 19 9	22,008 18 3	21,019 19 5	21,802 12 11	5·8
Miscellaneous Expenses	9,009 2 9	12,613 10 10	10,439 2 0	12,604 8 0	12,619 4 6	13,001 2 5	11,064 3 0	12,056 18 5	33.8
Superannuation Allowances	13,920 9 2	14,177 0 8	14,492 12 6	14,582 19 6	15,020 19 4	15,812 12 4	16,762 4 5	15,131 8 1	8·7
New Works in building Lighthouses, &c.	24,699 7 0	39,680 19 3	72,631 2 8	28,822 3 10	41,667 5 1	43,144 6 8	27,775 2 3	42,286 16 7	71·2
	236,341 4 1	259,106 7 3	298,307 8 6	264,823 15 2	277,461 11 8	287,478 0 2	270,327 6 2	276,256 14 7	16·8

NORTHERN LIGHTHOUSES.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Maintenance of Lighthouses	25,500 10 11	28,079 19 11	30,927 7 0	31,161 5 3	30,791 0 8	31,732 9 8	33,345 19 6	31,006 7 0	21·5
Maintenance of Lightvessels	1,355 16 11	1,089 5 7	1,473 0 3	1,209 13 9	1,608 2 6	1,148 4 6	2,104 11 11	1,438 16 5	6·1
Maintenance of Buoys and Beacons	2,026 15 5	1,294 16 11	1,527 8 7	3,084 8 3	2,719 10 7	2,946 16 7	2,064 10 3	2,272 18 6	12·1

Maintenance of Steam and Sailing Vessels	16,574 10 4	18,179 9 7	17,792 15 8	20,268 18 7	18,469 2 6	18,262 8 1	18,725 10 2	18,616 7 5	12·3
Maintenance of District Storehouses, &c.	774 17 5	792 6 5	768 12 4	731 5 3	838 2 3	800 1 4	911 9 10	806 19 7	4·1
Head Office Expenses	3,999 9 4	6,126 5 0	6,614 14 7	6,807 10 4	6,725 3 2	6,573 9 4	7,349 14 10	6,699 9 7	67·5
Miscellaneous Expenses	2,897 4 6	2,122 17 9	2,333 13 0	3,044 8 0	3,086 4 5	2,820 8 8	2,377 7 9	2,630 16 7	9·2
Superannuation Allowances	3,904 1 9	4,246 13 2	4,470 3 0	4,810 5 8	4,583 4 1	4,827 10 9	4,745 12 3	4,613 18 1	18·1
New Works in building Lighthouses, &c.	2,5931 3 5	35,292 4 1	19,565 9 10	13,043 3 11	30,212 18 10	27,291 16 0	19,568 1 1	24,162 5 9	6·8
	82,964 10 0	97,223 18 5	85,473 4 3	84,160 19 0	99,033 9 0	96,403 4 11	91,192 17 7	92,247 18 11	11·2

IRISH LIGHTHOUSES.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Maintenance of Lighthouses	27,215 18 11	30,127 13 7	31,587 15 3	35,042 7 0	34,356 18 1	32,651 19 11	33,416 18 8	32,863 18 9	20.7
Maintenance of Lightvessels	19,485 15 8	18,968 15 6	18,491 3 3	16,153 5 0	20,914 3 8	19,236 9 0	18,482 11 9	18,707 14 8	3·9
Maintenance of Buoys and Beacons	1,451 11 0	1,254 15 3	829 12 7	1,492 17 11	2,216 0 2	1,670 0 8	3,124 18 6	1,764 14 2	21·3
Maintenance of Steam and Sailing Vessels	13,154 2 2	14,084 12 5	14,427 8 10	18,949 13 7	14,139 10 8	16,420 3 8	13,718 17 11	15,290 1 2	16·2
Maintenance of District Storehouses, &c.	3,972 8 6	4,329 11 5	4,521 10 5	4,663 13 9	3,795 2 0	3,945 9 4	3,669 10 7	4,154 2 11	4·5
Head Office Expenses	7,047 12 3	7,686 17 2	7,710 2 3	7,371 17 3	7,795 16 10	7,700 8 2	7,688 3 0	7,658 17 5	8·6
Miscellaneous Expenses	2,480 16 10	2 084 6 11	3,150 9 5	2,939 10 4	3,378 1 11	3,670 10 11	3,412 8 3	3,105 17 11	25·2
Superannuation Allowances	4,048 1 11	4,899 7 4	5,713 2 1	6,541 5 3	7,014 18 5	7,126 2 0	7,663 2 4	6,492 19 6	60·3
New Works in building Lighthouses, &c.	14,473 1 7	23,361 3 2	28,409 10 0	30,067 1 2	18,032 12 6	36,187 18 1	40,364 14 10	29,403 16 7	103·1
	93,329 8 10	106,797 2 9	114,840 14 1	123,221 11 3	111,643 4 3	128,609 1 9	131,541 5 10	119,442 3 1	27·9
Grand Total	412,635 2 11	463,127 8 5	498,621 6 10	472,206 5 5	488,138 4 11	512,490 6 10	493,061 9 7	487,940 16 7	18·2

APPENDIX C.

II.

Mr. A. Norman Hill (Secretary to the Liverpool Steamship Owners' Association).

SUMMARY SHOWING THE EXPENDITURE OF THE LIGHTHOUSE BOARDS IN EACH OF THE SIX YEARS 1900–1905 INCLUSIVE, UPON (1) EXPENDITURE OTHER THAN NEW WORKS, AND (2) ON NEW WORKS, AS COMPARED WITH THE AVERAGE ANNUAL EXPENDITURE DURING THE PRECEDING SIX YEARS.

APPENDIX C—II.

Mr. A. Norman Hill, Secretary to the Liverpool Steamship Owners' Association.

SUMMARY showing the Expenditure of the Lighthouse Boards in each of the Six Years 1900 to 1905 inclusive: (1) Expenditure other than on New Works and (2) Expenditure on New Works, as compared with the Average Annual Expenditure during the preceeding Six Years.

EXPENDITURE — EXCLUDING NEW WORKS.

Average Expenditure six years ending 31st March 1899, excluding New Works.	Year.	The Three Boards.		Trinity.		Northern.		Irish.	
		Total.	Increase on Average.	Total.	Increase on Average.	Total.	Increase or decrease on average.	Total.	Increase on Average.
		£	£	£	£	£	£	£	£
	1900	364,793	17,262	219,425	7,784	61,931	4,898	83,435	4,579
	1901	378,015	30,484	225,676	14,035	65,907	8,874	86,431	7,575
£									
The Three Boards - - - - - - 347,531	1902	400,273	52,742	236,001	24,360	71,117	14,084	93,154	14,298
Trinity - - - - - - - - 211,642	1903	398,225	50,694	235,794	24,153	68,820	11,787	93,610	14,754
Northern - - - - - - - - 57,033	1904	405,866	58,335	244,333	32,692	69,111	12,078	92,421	13,565
Irish - - - - - - - - 78,856	1905	405,353	57,822	242,552	30,911	71,624	14,591	91,176	12,320

NEW WORKS.

Average Expenditure 6 years ending 31st March, 1899, on New Works.									
	1900	98,334	33,231	39,680	14,981	35,292	9,361	23,361	8,888
	1901	120,606	55,503	72,631	47,932	19,565	*6,365*	28,409	13,936
The Three Boards - - - - - £65,103	1902	71,932	6,829	28,822	4,123	13,043	*12,888*	30,067	15,594
Trinity - - - - - - - - 24,699	1903	89,912	24,809	41,667	16,968	30,212	4,281	18,032	3,559
Northern - - - - - - - - 25,931	1904	106,623	41,520	43,144	18,445	27,291	1,360	36,187	21,714
Irish - - - - - - - - - 14,473	1905	87,707	22,604	27,775	3,076	19,568	*6,366*	40,364	25,891

APPENDIX C.
III.

ANALYSIS PREPARED BY VICE-ADMIRAL W. H. HENDERSON OF APPENDIX B.—VI.

APPENDIX C.—III.

ANALYSIS prepared by *Vice-Admiral W. H. Henderson* of Appendix B.—VI., together with Comparison of Expenditure on Maintenance of Lighthouses by the Three General Lighthouse Authorities.

UNWATCHED Lights are omitted, and the Minor Lights with attendants are shown under a separate heading.

The Subsidiary Lights of the Trinity House and Irish Lights Board, which are contained within the main Lighthouses, are omitted (except as to candle power and cost, the former of which is only 141¼ and 27 1/10 respectively), they do not affect the main comparison.

	Trinity House.	Northern Lighthouses	Irish Lights.
NUMBER OF STATIONS MAINTAINED:—			
Rock	22	12	22
Island	7	23	14
Total	29	35	36
Shore	40	45	37
Minor Lights	11	11	—
Separate Fog Signals	2	—	1
Total	82	91	74
FOG SIGNALS EXCLUSIVE OF BELLS:—			
Sirens	17	30	9
Reeds	5	1	—
Explosive	13	5	7
Gun	—	—	1
Total	35	36	17
IGHTKEEPERS AND ATTENDANTS:—			
Keepers and Engineers	208	207	175
Attendants	5	11	—
Female Attendants	2	—	29
Total	215	218	204
IN ADDITION THE BOARDS MAINTAIN (not shown in Appendix B. VI.):—			
Spare Keepers	22	—	5
Occasional Keepers	—	72	—
TATIONS RELIEVED BY TENDERS:—			
Rock *	11	7	5
Island	2	6½	—
Total	13	13½	5

* Holyhead Breakwater, where keepers walk ashore weekly, is not included.

ABSTRACT prepared by Vice-Admiral W. H. Henderson of Appendix B. VI.—*continued.*

	Trinity House.	Northern Lighthouses.	Irish Lights.
STATIONS RELIEVED BY OTHER METHODS :—			
Rock	10	5	17
Island	5	16½	14
Total	15	21½	31
PERIODS OF RELIEF :—			
Quarterly	—	2	—
Eight times Yearly	—	1*	—
Monthly	18½	—	—
Fortnightly	4½	20½	11
Ten days	—	1	
Weekly	—	8½	9
Twice Weekly	—	—	11†
Thrice Weekly	—	—	1†
Twice Daily	—	2†	3†
When necessary	5*	—	—
Total	28	35	36
ACTUAL NUMBER OF BUILDINGS FROM WHICH LIGHTS ARE SHOWN :—			
Lighthouses (other than Electric Light Stations)	76	81	73
Electric Lights	4	1	—
Minor Lights	11	11	—
Total	91	93	73
DESCRIPTION OF LIGHT :—			
Main :			
Fixed	15	24	37
Flashing	30	38	21
Revolving	9	15	6
Occulting	26	5	9
Minor :			
Fixed	—	7	—
Flashing	3	4	—
Revolving	—	—	—
Occulting	8	—	—
Total	91	93	73

* Indicates the islands are large and have supplies.

† Indicates stations are close to mainland.

ABSTRACT prepared by Vice-Admiral W. H. Henderson of Appendix B.—VI.

	Trinity House.	Northern Lighthouses.	Irish Lights.
CHARACTER OF LIGHT:—			
Main:			
Catoptric	13	4	18
Dioptric	67	68	55
Catadioptric	—	10	—
Minor:			
Dioptric	11	11	—
Total	91	93	73
ILLUMINANTS:—			
Main:			
Electricity	4	1	—
Incandescent Oil	57	51	18
Oil	13	18	49
Gas	—	—	5
Incandescent Gas	6	9	—
Oil Gas	—	2	—
Acetylene	—	1	1
Minor:			
Incandescent Gas	3	—	—
Gas	2	—	—
Lythene	5	—	—
Oil	1	7	—
Acetylene	—	4	—
Total	91	93	73
TOTAL CANDLE POWER OF ALL LIGHTS taking the maximum of each (in units of 1,000 candles):—			
Electric	Not stated	Not stated.	
Main Lights	$7{,}790\frac{1}{4}$	$10{,}207\frac{1}{4}$	$6{,}233\frac{1}{10}$
Subsidiary Lights	$141\frac{1}{4}$	—	$27\frac{1}{10}$
Minor Lights	20	$5\frac{1}{10}$	—
Total	$7{,}951\frac{1}{2}$	$10{,}212\frac{7}{10}$	6,261

ABSTRACT prepared by Vice-Admiral W. H. Henderson of Appendix B. VI.—*continued.*

	Trinity House.	Northern Lighthouses.	Irish Lights.
DESCRIPTIONS OF CANDLE POWER :—			
2,500 and under	3	9	33
	11 (minor)	11 (minor)	—
2,500 to 10,000	12	19	12
10,000 to 50,000	34	14	7
50,000 to 100,000	3	8	4
100,000 to 200,000	9	15	9
Above 200,000	19	17	8
Total	91	93	73

Comparison of Average Candle-power of Main Lights (exclusive of electric lights):—

T. H., 76 ; N. L., 81 ; I. L., 73	105,000	126,000	86,000

POINTS OF DIFFERENCE.

The Trinity House have three electric light stations in excess of the Northern Lights and four in excess of the ish Lights, the latter having none. The Northern Lights have nine more stations than the Trinity House and seventeen more than the Irish Lights, one and nineteen more fog-signals attached to stations, with a much larger number of sirens, although fewer explosive signals, their number of keepers and attendants is slightly in excess, their tenders carry out a greater number of reliefs in much shorter periods of time than those of the other oards, and, excluding electric lights, their lights exhibit considerably greater candle power.

COMPARISON OF EXPENDITURE ON MAINTENANCE OF LIGHTHOUSES.

For 1905–6 (the latest return available) the cost for Maintenance of Lighthouses is :—

Trinity House.	Northern Lighthouses.	Irish Lights.
£	£	£
45,342	34,949	34,630

The difference between the cost of an electric light station and a first-class shore station may be taken at £585 App. B. II.). Deducting £1,755 and £2,340 respectively from the Trinity House expenditure the comparison becomes :— .

	£	£
Trinity House expenditure	45,342	45,342
Deduct for electric light stations	1,755	2,340
	43,587	43,002
Northern Lights and Irish Lights totals	34,949	34,630
Excess of Trinity House over Northern Lighthouses and Irish Lights after making allowance for the greater cost of electric light stations.	8,638	8,372

Appendix A. VIII. shows that this difference is practically normal.

The expenditure under this head by the Scottish and Irish Boards is approximately equal.

I N D E X.

ABERCORN, THE DUKE OF, K.G., C.B., member of Irish Lights Board *H. G. Cook* – – – – 754

ABERDEEN :

an Important fishing harbour *D. Crawford* 5525

Lord Provost :

is Member of Northern Lighthouse Board *Hon. T. H. W. Pelham, C. Dick Peddie, D. Crawford* – – 29, 1296, 1309, 5452
Seldom attends meetings *C. Dick Peddie* 1360

Sheriff :

Member of Fishery Board of Scotland *C. Dick Peddie* – – – – 1547
Member of Northern Lighthouse Board *C. Dick Peddie* – – – 1296, 1309

References *D. Crawford, C. Dick Peddie* 5437, 5500

ABERDOVEY :

Buoys, number of, *A. Owen* – – – – 703
Harbour of refuge for fishing boats *A. Owen* – 703

Trinity House :

Decision of, not to establish harbour lights *A. Owen* – – – – – – 703
Seamarks maintained by, *Capt. A. W. Clarke* – – – – – 5119

ACTS, *see under* PARLIAMENT.

ADMIRALTY :

Applied for vessels to be fitted with bells *Hon. T. H. W. Pelham* – – – – – 240
Charts issued solely by, *Comdr. G. C. Frederick* 4211–2
Evidence on behalf of, *see* TIZARD, CAPT. T. H.

Hydrographical Department :

Fog-signal instructions, reference *A. Owen* 532
Issues all original documents connected with navigation *Capt. T. H. Tizard* 3561
Responsible for survey work *A. Owen* – 347
Submarine bell, favourable report on experiments *Capt. T. H. Tizard* 3509, 3516

Trinity House :

Advice of, asked as regards seamarks *A. Owen, T. Matthews* 320–2, 2153
Constant communication with, *Sir G. Vyvyan* – – – – 5148–50

Light List :

Corrected and adjusted by lighthouse engineers *D. A. Stevenson* – – 2483
Fog-signal instructions quoted in, *A. Owen* 532
Includes all lights in British Isles *A. Owen* 642

is Local Lighthouse Authority for naval ports *Hon. T. H. W. Pelham* – – – 231–2
Method of testing chain cables *T. Matthews* 2122
New works undertaken by Trinity House *T. Matthews* – – – – – 2154
No jurisdiction over Lighthouse Authorities *Hon. T. H. W. Pelham, Capt. T. H. Tizard* 78–9, 3482

Notices to Mariners :

Issue by Admiralty only, advocated *Capt. T. H. Tizard* – – – – 3548–9
Issued for Royal Navy only *Comdr. G. C. Frederick, Sir G. Vyvyan* – 4366–7, 5415
Lighthouse Authorities' notices re-issued *A. Owen, Capt. T. H. Tizard* 598–603, 3481–3
Various sources of information *Capt. T. H. Tizard* – – – – – 3490–3

Obtains information from Lloyd's *Capt. E. F. Inglefield* – – – – – – 3603–4
Opposed to use of lighthouses as signal stations *A. N. Hill, Sir W. Watson* 1978, 5756

Admiralty—*continued.*

Plans of coastguard cottages erected by Lloyd's approved *D. A. Stevenson* – – – 2590–1
Responsible for Queenstown Harbour Lights *Sir W. Watson* – – – – – 5773–4
References *A. Owen, Sir W. Watson* – 313, 5754

ADMIRALTY COURT :

Attendance of Elder Brethren at, *Sir G. Vyvyan* 4965–6

ADVISORY COMMITTEE OF THE SHIPOWNERS OF THE UNITED KINGDOM :

Abolition advocated *S. Lawther* – – 4583–4
Abolition not necessitated by representation of shipowners on Lighthouse Boards *H. Llewellyn Smith* – – – – 6078, 6141
Actuated by parochial spirit *Sir W. Watson* 5688, 5692–4
Annual conference at Board of Trade to discuss new works *C. Dick Peddie, Sir T. Blomefield, Comdr. G. C. Frederick* – – 1693, 3269, 4168–71

Appointment :

Circumstances leading to, *Hon. T. H. W. Pelham* – – – – – 10–11, 45
by Shipowners *H. Llewellyn Smith* 6214–5
Consider cottages of Northern Lighthouse Board too costly *D. A. Stevenson* – 2577
Consider Strumble Head Light should be paid for by Great Western Railway *Hon. T. H. W. Pelham* – – – – – – – – 54

Constitution : *Hon. T. H. W. Pelham* – 11–12

Irish Members elected by Chamber of Shipping *Hon. T. H. W. Pelham* – – 105
Representation of shipowners *Hon. T. H. W. Pelham* – – – – – – 48
Representation of Underwriters *H. Llewellyn Smith* – – – – 6204
Scotch and Irish shipowners not truly representative *Hon. T. H. W. Pelham* – 223

Enables shipowners to obtain insight into system of lighthouse management *A. N. Hill* – 1788

Functions :

Advise Board of Trade *H. Llewellyn Smith* 6073, 6078
Consider proposals made by Lighthouse Boards *Hon. T. H. W. Pelham, T. Matthews* – – – 14a–15, 2078, 2199
Have power to make suggestions *Sir T. Blomefield* – – – – – 3357
Improvements occasionally considered by, *T. Matthews* – – 2077, 2197, 2199
Limitation of, to consideration of new works *Hon. T. H. W. Pelham, A. N. Hill, T. Matthews, R. C. Rundell,* 12–13, 1933–4, 2074–5, 2196–7, 3968

Urgent new works :

Not always laid before, *Hon. T. H. W. Pelham* – – – – – 18
Proposals for, dealt with by correspondence *Hon. T. H. W. Pelham*– 106–7

General Lighthouse Fund :

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